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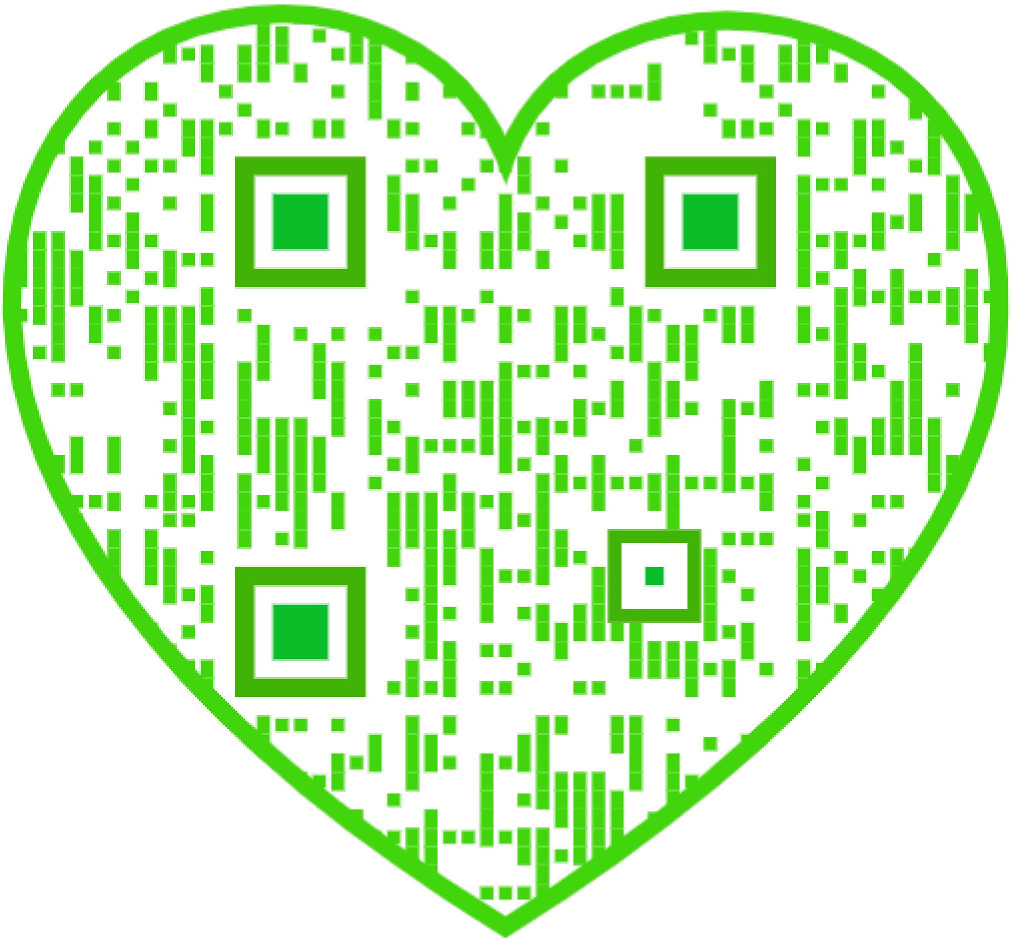
KEY Publishing
UK £5.99
March 2025



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Welcome

Hello and welcome to the March issue of *Airliner World*, incorporating *Airports of the World*.

A milestone was reached on January 5, 2025, when Jet2.com operated the final passenger flights of a British-registered Boeing 757. It was a historic moment and we at *Airliner World* were fortunate to be there to witness it firsthand. After 42 years of service, the Seattle Rocket has flown its final passengers for UK carriers. As is often the case with January, the weather was a mixed bag – on this particular day, a snowstorm hit the UK, casting uncertainty over the final flights of the venerable Alpha India. Despite the challenges, the flights went ahead. We've dedicated this month's cover story to recounting the event, and I'd like to extend a special thanks to the crew for their hard work and patience throughout – there was a lot of photo taking and the longest queue for a flight deck visit I've ever seen!

Elsewhere in this issue, we turn our focus to Asia, a region with one of the world's most dynamic and rapidly growing aviation industries. We have a range of articles covering major carriers like Malaysia Airlines and Cathay Pacific, as well as in-depth looks at Ninoy Aquino International Airport in the Philippines and the evolution of Chinese airliners. Lee shares his insights into Malaysia Airlines' transformation over the past decade, following his visit to Kuala Lumpur last year. From a fleet upgrade, to new cabin designs and expanded routes, it's been a period of significant change for the airline. Meanwhile, our From the Cockpit series returns with a captivating flight deck diary by Mawgan Grace, a Cathay Pacific A350 captain. In this entry, he recalls a memorable flight from New York to Hong Kong, the airline's longest route.

For airport enthusiasts, this issue also explores Ninoy Aquino International Airport in Manila, a fascinating hub with a unique and somewhat fragmented terminal layout. Rob provides a detailed account of this challenging but intriguing facility.

Additionally, I've developed a growing interest in the COMAC C919, China's answer to the A320neo and 737 MAX. This domestically-produced airliner made waves when the first example was delivered to China Eastern Airlines in late 2022 and, since then, 15 more have been handed over to three carriers. We take a closer look at the C919, tracing its development alongside the history of China's previous aircraft projects.

Finally, a quick reminder: our door is always open to hear from you, our readers. Whether it's feedback, photos, or thoughts on what you'd like to see more of, we welcome it all. Recently, some readers mentioned readability issues caused by background images that reduced the contrast between text and pictures. Based on that feedback, I've worked with our design team to ensure readability is a priority moving forward, so we hope you'll notice an improvement in future issues.

Thank you for being part of our community, and we look forward to hearing from you. Wherever you are in the world, I hope you enjoy this issue.

Thomas

Thomas Haynes
Editor

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COVER: *Jet2 Boeing 757-21B, G-LSAI, lands at Manchester in April 2024*
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ABOVE: *Airbus A350-941, 9M-MAG (c/n 213) was delivered to Malaysia Airlines in July 2018*
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News Review

AIRLINER WORLD'S **COMPREHENSIVE COVERAGE** OF WORLDWIDE NEWS

XLR debuts at Aer Lingus

Aer Lingus
St Lelia
XLR

AER LINGUS welcomed its first two CFM International LEAP-1A-powered Airbus A321XLR aircraft on December 18, 2024, following ferry flights from Hamburg/Finkenwerder to Dublin. The two jets, EI-XLR (c/n 11348) *St Lelia/Liadhain* and EI-XLT (c/n 11590) *St Melanie/Mella*, are the first of six and will operate existing transatlantic routes as well as new destinations such as Nashville and Indianapolis.

The Irish carrier had been in pole position to be the type's inaugural operator. However, a pilot pay dispute saw the launch transferred to IAG stablemate, Iberia, with a November 6 maiden rotation from Madrid/Barajas to Paris/Charles de Gaulle. The aircraft are configured in a two-class layout with 16 business and 168 economy seats, similar to Iberia's 14 business and 168 economy seats.

The airline says the XLR has a fuel burn per seat of up to 20% lower than similar previous-generation aircraft and can operate with up to 50% sustainable aviation fuel (SAF). Lynne Embleton, chief executive, said: "The arrival of our two new Airbus A321XLRs mark a significant milestone for [us]. The long-range capabilities of the XLR enable us to travel deeper into North America, offering previously unserved markets greater connectivity to Europe through our Dublin hub."

Meanwhile, Benoît de Saint-Exupéry, chief commercial officer Airbus, added that Aer Lingus would be the carrier to demonstrate how the A321XLR will "truly revolutionise long-haul travel, allowing airlines to tap into new exciting city pairings". (Photo Aer Lingus)

Lufthansa increases A350 order

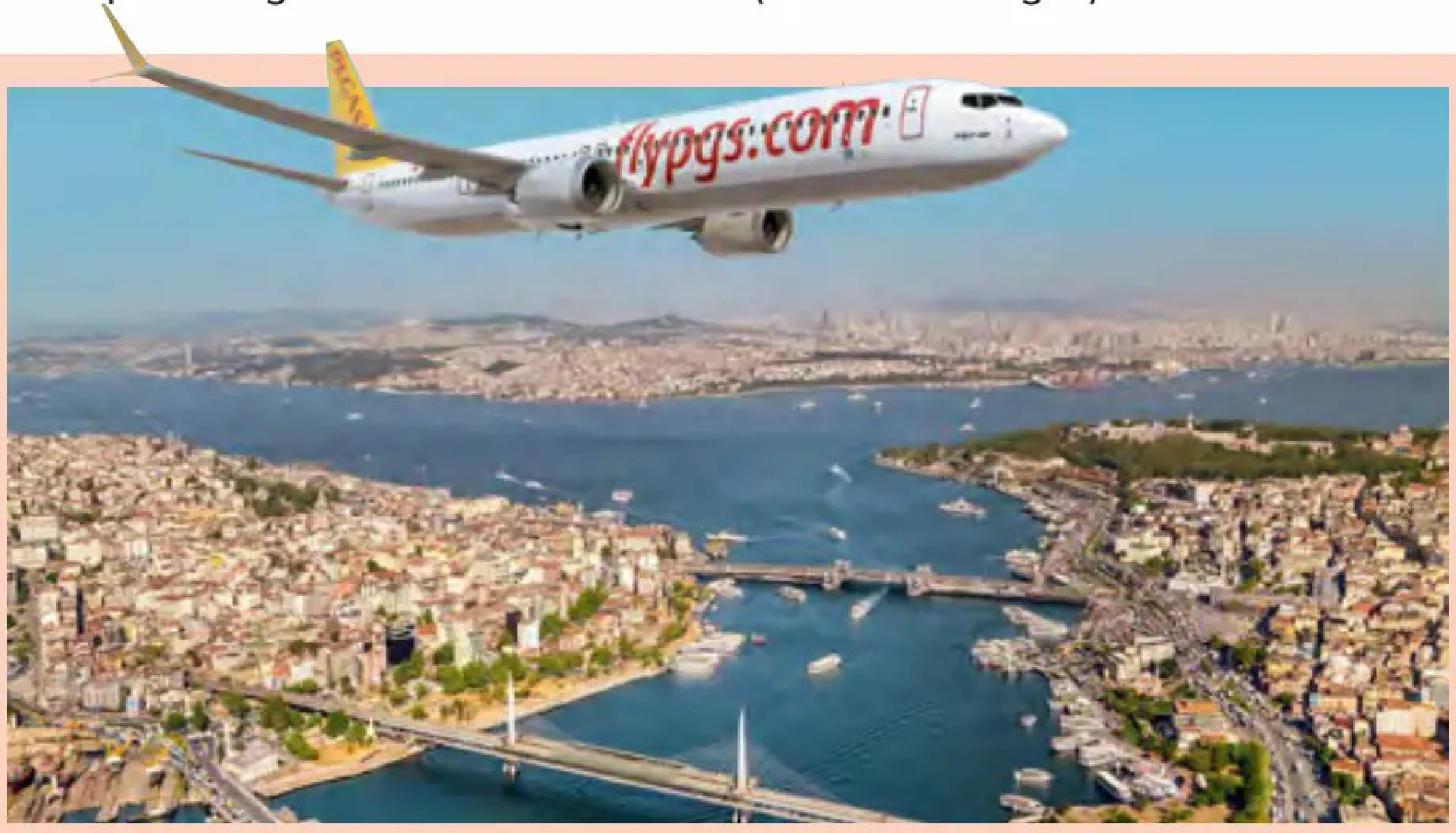
LUFTHANSA GROUP has ordered another five Airbus A350-1000s, taking its overall commitment to 15 of the type, to be delivered between 2028 and 2030. All will be powered by Rolls-Royce Trent XWB-97 engines. Its initial order of ten, made in March 2024, are scheduled for delivery from April 2026.

The A350-1000s will replace older four-engined models including the Boeing 747-400, Airbus A340-600 and A340-300. Carsten Spohr, Lufthansa Group CEO, said: "With the state-of-the-art A350 long-haul jets, we are accelerating the largest fleet modernisation the Group has done so far. We are investing more than ever before to make air transport more sustainable." He noted: "The Lufthansa Group has ordered 770 aircraft from Airbus throughout its history and is proud to be Airbus' largest customer worldwide."

A total of 75 A350-900s and A350-1000s aircraft have been ordered by Lufthansa Group, with 28 already in scheduled service, and with 47 to be delivered by 2031.

Meanwhile, the German airline group has completed its acquisition of ITA Airways, after the transfer of a 41% stake in the Italian flag carrier was concluded on January 17. The remaining 59% of shares will be held by the Italian Ministry of Economy and Finance.

Spohr said: "We are proud to finally welcome ITA Airways to the Lufthansa Group. We look forward to continuing this success story of ITA Airways together. With our investment, we will now strengthen the Italian and European aviation market and the position of the Lufthansa Group as number one in Europe." (Photo Airbus/Master Films/A Doumenjou)



MAX 10 for Pegasus

ISTANBUL-BASED PEGASUS Airlines has placed the largest order in its history for 100 Boeing 737 MAX 10s, with options for up to 100 more of the type. Based on list prices, the total order is valued at $36bn, with deliveries scheduled from 2028. The deal increases the MAX 10 backlog to 1,200 aircraft, with type certification from the Federal Aviation Administration still to be secured.

The aircraft is expected to help the Turkish low-cost carrier reach new markets across Europe, the Middle East, Central Asia and Africa. Güliz Öztürk, CEO Pegasus Airlines, said: "We are working tirelessly to reach new record highs and do our part for Türkiye to achieve the targeted 100 million visitors and $100bn in revenue in tourism. We will evaluate converting the remaining 100 aircraft options into firm orders in the coming years based on market conditions and the needs of our fleet. Boeing aircraft have been an integral part of our operations since [we] entered the aviation industry in 1990."

The Seattle-based manufacturer says the aircraft can carry up to 230 passengers with a range of up to 3,100nm while reducing fuel use and emissions by 20% compared to the aircraft it replaces. Stephanie Pope, president and CEO of Boeing Commercial Airplanes, said: "We have been a proud partner since their inception, and we are excited to welcome them as the newest 737 MAX customer. We look forward to delivering on the [MAX 10] and its promise of greater efficiency, versatility and reliability."

Pegasus currently has a fleet of 118 aircraft, comprising 52 Airbus A320s, 57 A321s and nine 737-800s, and already has an existing order of A321neos being delivered through to 2029. (Photo Boeing)

AirBaltic slashes schedule

LATVIAN FLAG carrier airBaltic is cutting 19 routes from its summer schedule and reducing frequencies on 21 others, affecting an estimated 67,160 passengers. It attributed the decision to delays in engine maintenance for its Airbus A220-300 fleet and said it has been "forced to cancel 4,670 flights from all its bases".

Blaming its supplier, Pratt & Whitney, it continued: "The engine manufacturer's inability to meet its timely maintenance obligations has impacted the operational capabilities of airBaltic's A220-300 fleet, forcing the airline to adjust its summer schedule." Several of its A220s will remain grounded due to these maintenance issues.

The airline said it deeply regretted the "disruption caused by these forced cancellations and remains fully committed to supporting affected customers." It went on to say it continues to "work closely with Pratt & Whitney to resolve the maintenance delays and find a sustainable solution".

Ten routes from Riga will be cut, plus six from Vilnius, two from Tallinn and one from Tampere. Despite these challenges, it has promised to continue operating most of its flights to more than 70 destinations across Europe and beyond.

The carrier was the launch operator for the A220-300 and is awaiting the imminent delivery of its 50th example, YL-ABX (c/n 55329), which will have a special livery with a colour scheme chosen from 840 entries to a public design competition in 2023. The airline described it as portraying an artistic depiction of a girl soaring through the clouds with long, flowing hair crowned by a traditional wreath and featuring the Latvian flag. The design also incorporates other elements inspired by the heritage and nature of the Baltic region. (Photo airBaltic)

Ryanair loses pilot blacklisting appeal

LOW-COST GIANT Ryanair has lost an appeal in the UK courts regarding removing concessionary travel benefits for pilots who took part in a strike in 2019. The case arose following the British Airline Pilots' Association's (BALPA) call to strike in August and September 2019. Following the former strike dates, the airline warned that any pilots taking part in the action on the latter strike dates would have their staff travel privileges removed for a year. It followed through with the threat, which BALPA said effectively punished the pilots "for exercising their legal right to strike". Flight crews that took part in the industrial action on September 18-19 subesequently took the matter to an employment tribunal in January 2020.

The pilots won the case, which Ryanair then appealed to the Employment Appeal Tribunal, but the case was dismissed in 2021. The airline took the matter to the High Court, where the three judges simultaneously agreed to dismiss Ryanair's plea.

BALPA's general secretary, Amy Leversidge, called the dismissal "a huge win for BALPA and the trade union movement". She also went on to commend the "bravery" of the pilots who challenged the airline. "Thankfully, the Court's decision will put a stop to employers making lists of striking employees in order to punish them, and we hope that this judgment will make employers think twice before relying on other harmful strike-busting tactics in the aviation sector and beyond," she added.

Meanwhile, the Dublin-based carrier has announced plans to cut operations in Spain by 18% this summer due to "excessive" airport charges implemented by the country's airport operator Aena. Twelve routes will be dropped, and the airline will also cease operations at Jerez and Valladolid airports, amounting to a loss of around 800,000 seats. Ryanair said that the cuts will only affect regional Spanish airports and that it will increase its services at major airports across the country by over 5% this year. (Photo Ryanair)

in brief

Scottish regional airline **Loganair** has adopted Avios as the currency for its loyalty programme. It will join existing members Iberia, Aer Lingus, Vueling, Qatar Airways and Finnair, and the move will reinforce its existing codeshare agreement with British Airways. The airline said the transition is "automatic for existing Clan Loganair members [and] will bring a range of rewards and opportunities for loyalty programme members".

Norse Atlantic Airways achieved a 94% load factor during December 2024, up 23% on the same time last year, as it operated 434 flights and transported 124,450 passengers. Elsewhere, the airline has signed a letter of intent (LoI) to move into Terminal 6 at New York/JFK during 2026, when the first six gates become operational. The carrier currently resides in Terminal 7, which will eventually be demolished to complete the second phase of Terminal 6 in 2028.

Air Serbia has begun a codeshare agreement with **China Southern Airlines**, which offers passengers of the Belgrade-based airline connections to 20 onward destinations from Guangzhou and, for passengers coming the other way, 21 destinations in Europe. The news comes after the airline launched twice-weekly flights between Belgrade and Shanghai/Pudong on January 10, and also revealed it carried 4.44 million passengers in 2024, the third largest number in its near century-long history.

The first **Austrian Airlines** Boeing 777-200ER equipped with the AeroSHARK surface technology re-entered service on January 13 between Bangkok and Vienna. The 23-year-old OE-LPC (c/n 29313) received 830m2 of the 50-micrometre thick riblet film developed by Lufthansa Technik and BASF, which the airline said saves 1% on fuel consumption per flight. Three more 777s will be modified by March this year.

Ryanair said it expects to receive up to 29 737 MAX 8-200s from Boeing in 2025 after accepting 36 last year. It says the aircraft will be allocated to countries where aviation growth is stimulated, citing Sweden, Italy, Spain, and Poland, and the extra capacity should enable it to carry 210 million passengers this year. The Irish budget carrier has 38 MAX 8-200s on order, plus 150 yet-to-be-certified MAX 10s scheduled for delivery in 2027.

Eurowings to become 737 MAX operator

AFTER PLACING an order for 100 Boeing 737 MAX jets in December 2023, the Lufthansa Group has revealed its low-cost subsidiary Eurowings will become the first operator of the type. Forty of the incoming 737 MAX 8s will be allocated to Eurowings, with deliveries set to run from 2027 until 2032. The deal is equivalent to an investment of around $5bn at current list prices.

Carsten Spohr, chairman of the executive board and CEO of the Lufthansa Group, said the decision was “a well-deserved and strong signal for a successful future of Eurowings”.

The aircraft will replace the airline’s older Airbus A319 and A320 models. Fitted with 189 seats, the Boeing jets will provide 39 additional seats compared to its A319 fleet. The airline also said that its longer range makes the 737 MAX the “perfect choice for longer medium-haul destinations” which it is increasingly offering in its portfolio.

Jens Bischof, CEO of the Cologne-based carrier, said that the deal would help Eurowings achieve “ambitious sustainability goals”. He continued: “The largest investment in our company’s history shows that we are making rapid progress towards low-emission flying – through significantly lower fuel consumption, lower emissions and significantly less noise. The high-cost efficiency of the new jets also enables us to continue to offer Eurowings customers fair and attractive fares. Without such a technological leap, an airline will hardly be able to operate successfully on the market in the 2030s.” (Photo Eurowings)

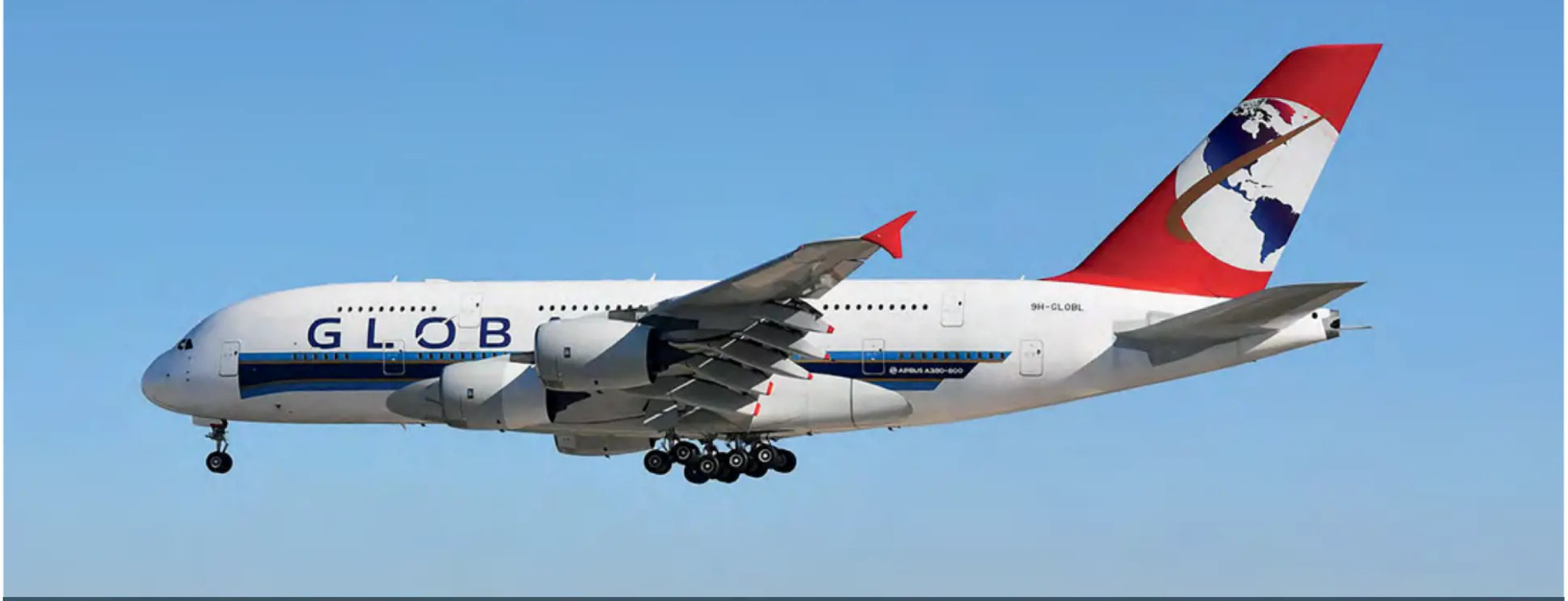
Avolon completes Castlelake purchase

DUBLIN-BASED AVOLON has completed the purchase of fellow lessor Castlelake Aviation. When the agreement was first announced last September, it valued the Castlelake fleet, of which 68% were narrowbodies, at $5bn. The deal includes a portfolio of 106 aircraft on lease and commitments for ten new technology aircraft, increasing its fleet to 1,129 aircraft, including 664 owned and managed examples, and commitments for 465 new technology airframes. Last year it acquired 45 aircraft and sold 55; and forecast lease rates will remain strong in 2025 as airlines cope with supply-chain issues by extending leases for their current fleets.

It expects new deliveries to increase by around 20% in 2025 with more than 1,400 aircraft to be delivered, but “Airbus and Boeing will continue to struggle to hit their targets to ramp up production”. It said: “Lessors now hold more new aircraft supply out to 2030 than Boeing and Airbus combined. Orderbooks have consolidated around a smaller number of lessors who will benefit from higher placement returns as under-ordered airlines compete for scarce aircraft.”

It also noted that “securing aircraft for expansion and fleet replacement will continue to be a major challenge in 2025, with slots for new aircraft sold out beyond 2030.” At the end of 2024 Avolon said it was working with 140 airlines in 59 countries. (Photo Avolon)

All systems go at **Global**



Global Airlines has taken a step closer to launching commercial operations after its maiden Airbus A380-841, 9H-GLOBL (c/n 120), touched down at Beja Airport, Portugal on January 17. The aircraft had been with EFW at its base in Dresden, Germany, since October 2024, where it had been undergoing heavy maintenance. The aircraft has now been handed over to MESA – Maintenance & Engineering for routine maintenance and cabin improvements. Before leaving EFW, the superjumbo had received a partial paint job with the carrier’s logo applied to the tail MESA

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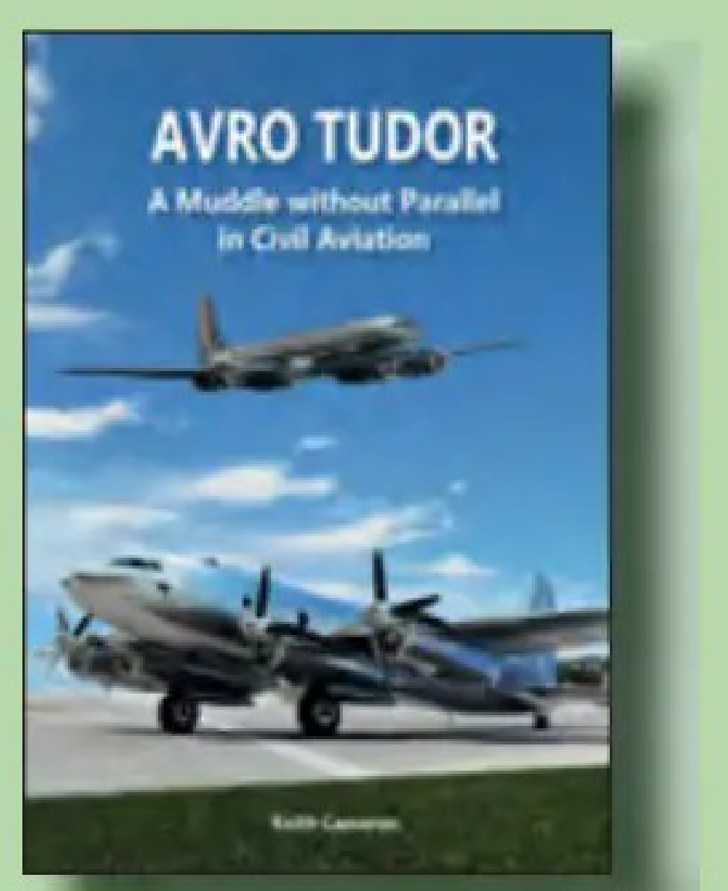

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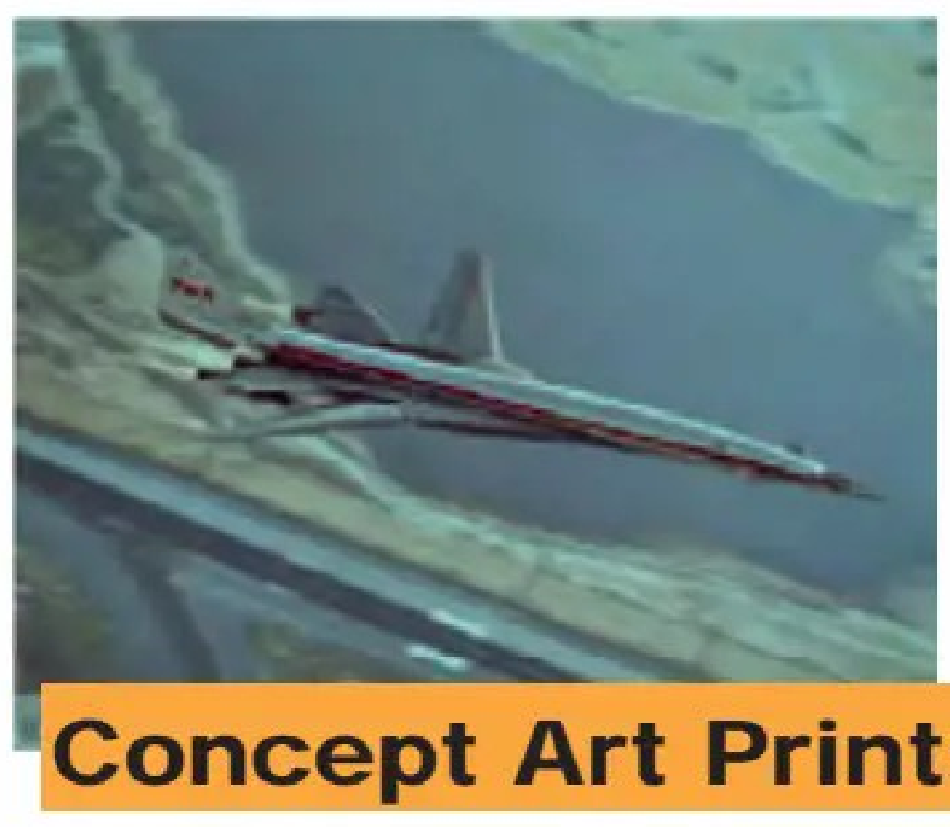

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Did Russian air defences bring down **Azerbaijan jet?**

AN EMBRAER E190 belonging to Azerbaijan Airlines crashed near Aktau, Kazakhstan, with the loss of 38 lives. The Brazilian-built aircraft, 4K-AZ65 (c/n 19000630), had been operating flight J28243 from Baku/Heydar Aliyev to Grozny, Russia, on December 25, 2024, with 67 passengers and five crew members onboard.

AZERBAIJAN
4K-AZ65

According to Azerbaijan transport minister Rashad Nabiyev, as the General Electric CF34-powered jet approached Grozny, it entered thick fog and made two attempts to land. During the third attempt, several explosions are reported to have hit the aircraft. Nabiyev said the "external interference" damaged the jet's control surfaces, tail and fuselage. Shrapnel is also believed to have penetrated the cabin and injured some of its occupants.

The aircraft then diverted to Aktau airport in Kazakhstan, some 280 miles from its intended destination. Russian authorities said that the pilots were offered alternative airports but chose Aktau. They also claimed that a bird strike may have caused the emergency.

Video footage of the accident showed the plane struggling to maintain altitude and directional control before descending rapidly, hitting the ground and skidding several hundred metres while on fire. The impact caused the jet to break into two pieces.

Flight tracking service Flightradar24 reported that valid ADS-B position data was received from the E190 until 0425hrs UTC "when the flight encountered significant GPS interference." Several other gaps in data followed until 0607hrs, when position data was once again received until the end of the flight at 0628hrs. They went on to say that the aircraft "was unable to maintain consistent altitude and speed for at least 75 minutes" and showed variable altitude and oscillating ground speed and vertical rate (per minute) values.

On the day of the accident, the airline suspended flights from Baku to Russian cities including Grozny and Makhachkala and, two days later, said it would also suspend flights to Mineralnye Vody, Sochi, Volgograd, Ufa, Samara, Saratov, Nizhny Novgorod and Vladikavkaz. The airline said the decision, made in accordance with the Azerbaijan State Civil Aviation Authority, "was based on the preliminary results of the investigation into the crash" and that the suspension would remain in place "until the completion of the final investigation." The airline has also since suspended indefinitely flights to Kazan in Russia.

In an official statement, Embraer said: "We are deeply saddened by the accident with an Embraer [E190] near Aktau, Kazakhstan. Our thoughts and heartfelt condolences go out to the families, friends, colleagues and loved ones affected by this tragedy. We are closely monitoring the situation and we remain fully committed to supporting the relevant authorities."

A few days after the crash, Russian President Vladimir Putin apologised to Azerbaijan's president, Ilham Aliyev. He said that the "tragic incident" occurred as Russian air defence systems had been attempting to repel Ukrainian drones, but he failed to take full responsibility for the crash. Ukraine's President Volodymyr Zelenskyy hit back, saying Russia must "stop spreading disinformation" about the strike. Meanwhile, President Aliyev has since claimed that another Azerbaijan flight turned away from southern Russia due to conflict-zone warnings just ten days before the crash of flight J28243.

Two weeks after the accident, the European Union Aviation Safety Agency (EASA) extended its conflict-zone advisory for Russian airspace until at least July 31. The agency now advises against all operations, regardless of altitude, within five flight regions comprising Moscow, St Petersburg, Samara, Yekaterinburg and Rostov-on-Don.
(Photo V1Images.com/William Musculus)

Aeroflot spreads its wings

AEROFLOT
Russian Airlines

AEROFLOT HAS relaunched flights between Moscow and Hong Kong. The route had been suspended in March 2020 due to restrictions imposed by the COVID-19 pandemic and the suspension continued due to the ongoing international sanctions against Russia following its invasion of Ukraine. The flight from Moscow/Sheremetyevo is operated by one of the carrier's Airbus A330-300s and will be flown thrice-weekly on Tuesdays, Thursdays and Saturdays.

The airline said: "It is expected that the Moscow-Hong Kong-Moscow air route will be in demand among airline passengers making both business and tourist trips. The first Aeroflot flight was performed with a high load."

Despite the international restrictions against Russia, Aeroflot continues to fly to 108 destinations across 21 countries. Indeed, the Aeroflot Group recently announced double-digit passenger growth on both domestic and international passenger traffic year-on-year in 2024. The airline group, which consists of flag carrier Aeroflot, Rossiya Airlines and low-cost carrier Pobeda, carried some 55.3 million passengers during the year, up 16.8% from the previous year.

It said that its best-performing domestic routes include destinations from Sheremetyevo to Penza, Grozny, Kirovsk, Kemerovo and Kaliningrad. Meanwhile, international routes showing the most intense passenger traffic growth include Moscow to Guangzhou, Sharm El Sheikh, Karaganda, Colombo and Bodrum, as well as Saint Petersburg to Dubai and Krasnoyarsk to Almaty.
(Photo Martin Needham)

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DAE acquires NAC

DUBAI AEROSPACE Enterprise (DAE) has agreed to acquire fellow lessor Nordic Aviation Capital (NAC), whose fleet includes more than 250 aircraft, specialising in regional turboprops and narrowbody leasing. NAC was formed more than 30 years ago and generated a $72m net profit in 2023. Last September its fleet comprised 252 owned and committed assets on lease to approximately 60 airline customers in around 40 countries. It has been divesting older models – particularly De Havilland Canada Dash 8-400s and Embraer E-Jets – in favour of Airbus A220s, A320s, Boeing 737s, and ATR turboprops.

Headquartered in Dubai, DAE also operates from locations in Dublin, Amman, Singapore, Miami, New York, and Seattle. Its fleet will now comprise approximately 750 owned, managed and committed aircraft with a total value of around $22bn on lease to approximately 170 airline customers in 70 countries. Firoz Tarapore, CEO of DAE, said: "We are delighted at this opportunity to add NAC's capabilities, complementary market presence, and people to our platform. This transaction will allow us to provide more cost-effective solutions to a larger group of customers."

DAE said the transaction will be "appropriately capitalised" and funded by "internal resources and committed debt financing", and that its leverage and funding metrics will "remain comfortably within the levels consistent with [its] credit ratings." The deal is subject to regulatory and shareholder approval, but is expected to complete in the first half of 2025. (Photo DAE)

Dubai Aerospace Enterprise
ATR 72-600

Emirates SkyCargo uplift

EMIRATES SKYCARGO has enlarged its Boeing 747 freighter fleet to six aircraft after concluding a "multi-year lease agreement" with Bulgarian-based Compass Air Cargo, which will operate its three jumbo freighters for Emirates. The airline said its overall main deck cargo capacity is now 15% higher than at the beginning of 2024, which will help it meet "burgeoning global demand". The 747s will enable "the airline to unlock immediate capacity to cater to customer demand, while the partners discuss avenues for further expansion of the collaboration." Badr Abbas, SkyCargo divisional senior vice-president, said: "We made significant investments in new and leased freighter aircraft [last year] to address the evolving supply chain and air cargo demands around the world, to ensure we had a stable supply of capacity to best serve our global customers."

The Dubai-based carrier has a current fleet comprising ten 777Fs and six wet-leased 747s, with 13 777Fs on order and delivery expected between 2025 and 2026, by which time the cargo fleet will have grown to 21. The airline also has plans to convert several 777-300ERs for cargo use, and has been exploring its future fleet options, considering both the 777-8F and the Airbus A350-1000F, although it is yet to make a final decision. Abbas added: "We anticipate that demand will continue to boom, reflecting Dubai's prominence as a global logistics hub. Enhancing our cargo capabilities is essential to support Dubai's economic agenda, enabling us to reach new destinations, bolster our current operations and elevate our specialist product portfolio." (Photo Key-Tony Dixon)

Emirates
SkyCargo

SAA expands

South African
flysaa.com

SOUTH AFRICAN Airways has added a pair of leased Airbus A320s to its fleet, increasing its operation to 20 aircraft. The Johannesburg-based carrier recently revealed a financial turnaround as detailed in the February issue of *Airliner World* and announced its first net profits since 2012. It said: "SAA's relationship with AerCap is proof of the recovery of the airline's credit status with major international aviation finance institutions."

John Lamola, the carrier's interim CEO, said: "These additional aircraft will enable SAA to continue fulfilling our promise to add seat capacity in both the domestic and regional market, and thereby contributing to the affordability of passenger air travel."

The carrier expects its roster to grow by a further three aircraft during this year. Lamola added: "Fleet growth comes as the airline enters a phase of consolidation, increasing the frequency of flights to service an existing route network." It currently operates a fleet comprising 12 A320-200s, two A330-300s, two A340-300s and four Boeing 737-800s.

The airline has also launched services between Johannesburg and Dar es Salaam and is increasing its flight frequency to Harare and Lusaka to 12 flights per week, up from ten and seven, respectively. Services to Lagos and Accra have been increased from three to four times a week, while services to Kinshasa have increased to five times a week. (Photo Airbus/Hervé Goussé)

Kenya Airways suspension lifted

KENYA AIRWAYS returned to the Nairobi Stock Exchange on January 5, after a moratorium that began on March 3, 2020, was lifted. In a statement, the stock exchange said: “The suspension on the trading of Kenya Airways PLC shares was lifted following the company’s recent performance which saw the company record a profit after tax and the withdrawal of the National Aviation Management Bill 2020.” The latter involved nationalising the airline, with the intention of addressing its debt and losses, which were obstructing its competitive potential, but in the end the nationalisation plan did not materialise. Michael Joseph, chairman of Kenya Airways, said at the time that the company was “committed” to completing a capital restructuring plan to reduce leverage and increase liquidity. This will provide Kenya Airways with a stronger foundation for long-term growth and stability.

Last August the airline revealed it had achieved a post-tax profit for the half-year to June 30, 2024 – its first for more than a decade. The improved performance was accredited to the Project Kifaru turnaround plan, which started in 2021 with the aim of reducing the fleet and operational costs. On its last day of trading in 2020, Kenya Airways stock closed at KES3.83 a share, but increased by around 25% during the first week after the resumption, valuing the airline at around $194m. It recently announced plans to extend its UK offering with new services to London/Gatwick and extra services to London/Heathrow as detailed in the February issue of *Airliner World*. (Photo Boeing/Gail Hanusa)

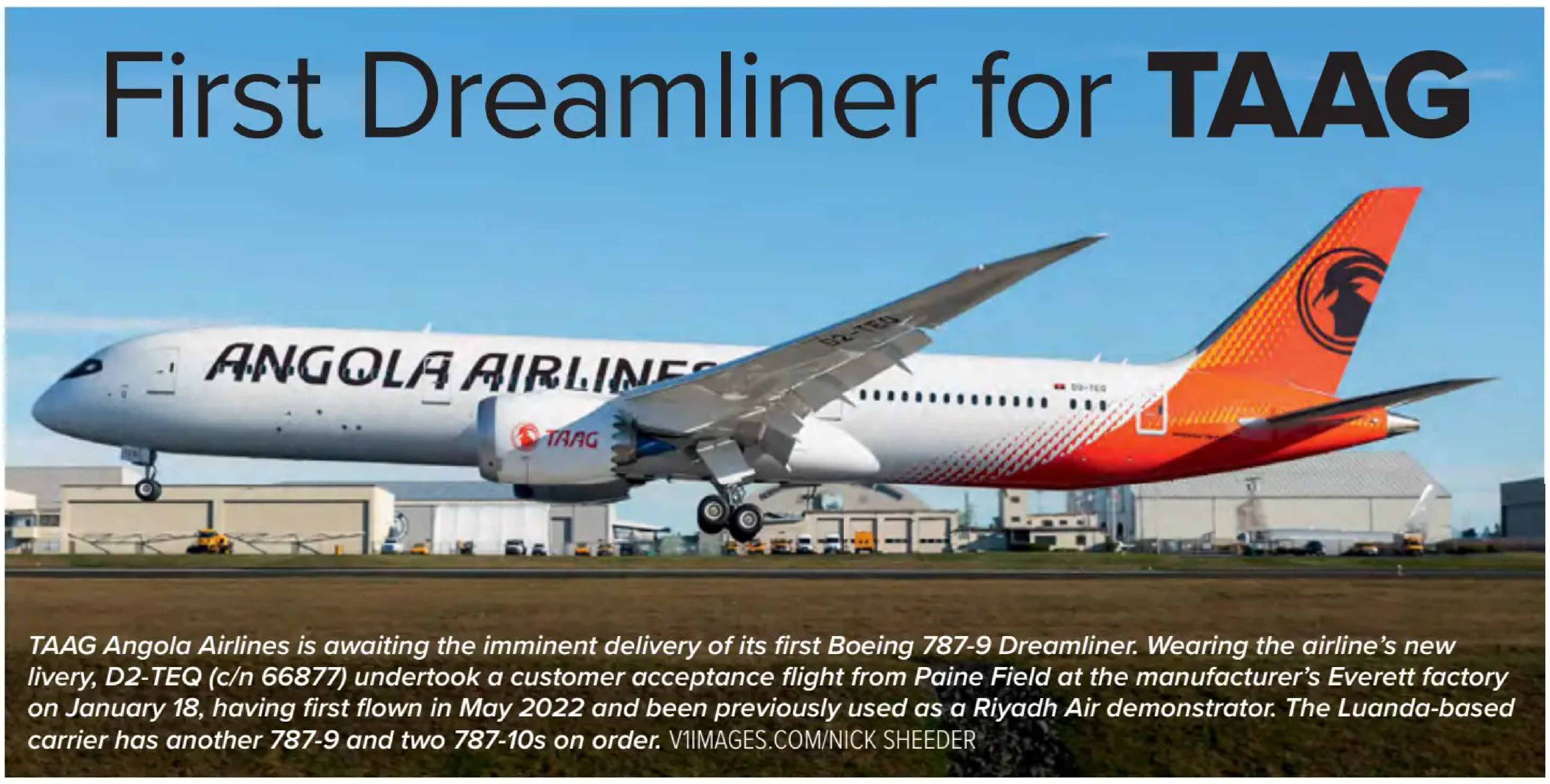
Arkia bound for Big Apple

ARKIA ISRAELI Airlines began thrice-weekly flights between Tel Aviv/Ben Gurion and New York/JFK on February 8, with services currently scheduled through to June 29. The link is a collaboration between the airline and TechAir, an alliance of entrepreneurs and technology investors – a not-for-profit initiative which “aims to restore open skies for Israel, offering practical and cost-effective solutions to the scarcity of flights to the United States”. As part of the co-operation, the airline will reserve seats for the high-tech industry to address the demand by start-ups and tech firms. The services will be operated by a chartered Iberojet A330-900.

Oz Berlowitz, Arkia CEO, said: “This is a historic and significant day for [us]. Launching the direct Tel Aviv-New York route is an important milestone, which shows our commitment to the Israeli public and to finding aviation solutions even in challenging times.”

In recent years, the route has been solely operated by Israeli flag carrier, El Al. As a result, prices have increased as capacity has reduced, with American Airlines, Delta Air Lines and United Airlines all suspending services from New York to Tel Aviv due to the conflict in Gaza. With a ceasefire in place, airlines are expected to begin to gradually reinstate services to Tel Aviv. The Arkia fleet currently comprises six aircraft: one Airbus A320-200, two A321neos, and three Embraer E195s. (Photo Airbus/Bengt Lange)

First Dreamliner for **TAAG**



TAAG Angola Airlines is awaiting the imminent delivery of its first Boeing 787-9 Dreamliner. Wearing the airline’s new livery, D2-TEQ (c/n 66877) undertook a customer acceptance flight from Paine Field at the manufacturer’s Everett factory on January 18, having first flown in May 2022 and been previously used as a Riyadh Air demonstrator. The Luanda-based carrier has another 787-9 and two 787-10s on order. V1IMAGES.COM/NICK SHEEDER

in brief

Emirates began revenue services with its first Airbus A350 on January 3, with an inaugural commercial flight to Edinburgh. With three of the type now operational, the aircraft are also being utilised on short-haul routes to Kuwait and Bahrain, with flight times of 1hr 50 mins and 1hr 20mins, respectively. The carrier currently deploys Boeing 777-300ERs on both routes and offers 29 weekly flights to Kuwait and 22 to Bahrain.

Saudi start-up **Riyadh Air** has received a leased Boeing 787-9 for training purposes and for use as a “technical spare” as it prepares to commence operations – originally expected to be in the spring of this year. The seven-year-old, 288-seat aircraft, HZ-RXX (c/n 38892), is being leased from Oman Air and features a cabin that is different from the airline’s soon-to-be revealed interior for revenue flights.

Doha-based **Qatar Airways** has resumed its services to the Syrian capital Damascus, with thrice-weekly flights and said it is “working closely with relevant authorities to ensure that all necessary safety, security, and operational standards are met”. Elsewhere, the airline will be resuming operations to Malta with twice-weekly services in each direction from July 2, increasing its European network to almost 50 destinations.

Jeddah-based **flyadeal** has opted for the Airbus A330neo as it expands into the widebody market. The yet-to-be confirmed order is expected to comprise ten aircraft with purchase rights for a further ten. The low-cost carrier had also been considering the Boeing 777-300ER and the 787, which are both operated by parent airline Saudia, the latter of which is on order at start-up Riyadh Air. However, commonality between the airline’s existing Airbus narrowbodies and the A330neo appears to have won the day for the European manufacturer.

Etihad Airways has opened its new US preclearance lounge at Abu Dhabi/Zayed International. The lounge is available to eligible guests travelling in the Residence, first or business class, as well as platinum and emerald Etihad guest members. Access is also available for purchase. The airline currently operates services to Boston/Logan, Chicago/O’Hare, New York/JFK, and Washington/Dulles, with flights to Atlanta/Hartsfield Jackson beginning in July of this year.

Delta soars into 2025

AS DELTA Air Lines heads towards its centenary, the Atlanta-based carrier is looking to the future with "game-changing" innovations and "great" financial results. The news came as CEO Ed Bastian delivered a keynote speech at the consumer electronics conference CES 2025, held in the one of a kind Las Vegas Sphere.

Delta's Q4 2024 operating revenue came in at $15.6bn, up 9% on the same period in 2023. Meanwhile, its operating profits stood at $1.7bn, up around 30% year-on-year. The airline said this was thanks to increased demand for its premium products. It was also helped by lower fuel costs, down some 18% year-on-year and down overall in its full-year 2024 results. These figures, Bastian believes, could see the carrier achieve its best financial results in its history in 2025.

During his keynote speech, Bastian was joined on stage by Julie Kitcher, chief sustainability officer and communications at Airbus. The pair discussed their future partnerships, including the collaboration on the European manufacturer's UpNext innovation lab with Delta's Sustainable Skies Lab. According to a statement, the two companies "will explore wing performance, fuel efficiency, superconductivity, advanced aircraft assistance and other technologies which may be needed for future aircraft".

Delta also revealed that it is to participate in the next flight test phase of a new flying technique pioneered by Airbus, fello'fly. The idea takes inspiration from migrating geese and "showcases the power of collaboration by pairing flights". The technique sees the first aircraft create an uplift that subsequently drives fuel efficiency for the following aircraft, called wake energy retrieval, which could reduce fuel consumption. Delta is the largest Airbus operator in the world, with nearly 500 Airbus aircraft in service and a further 200 on order. (Photo Airbus/F Lancelot/Master Films)

Spirit secures future funding facility

ULTRA-LOW-COST CARRIER (ULCC) Spirit Airlines has secured up to $300m in a future financing facility as it prepares to exit Chapter 11 bankruptcy proceedings. The financing consists of a $275m credit facility and an additional $25m credit facility.

The additional funds, secured from pre-petition debt holders, will be provided to the airline through a senior secured revolving credit facility. A filing to the US Securities and Exchange Commission (SEC) stated that the funds would be used primarily for working capital and other corporate purposes. However, this is subject to certain conditions, including a restructuring programme and the loss of 200 jobs across various departments. The company is aiming for annual savings of around $80m.

Spirit filed for bankruptcy in November 2024 after a failed merger attempt with JetBlue. A month later, it was delisted from the New York Stock Exchange. It has since slashed its network, furloughed hundreds of pilots and retired its last Airbus A319s. In August 2024, it reached an agreement with Airbus to defer all aircraft deliveries it had scheduled from Q2 of 2025 through to 2026. It has also been granted court approval to sell more than 20 Airbus A320 Family aircraft, generating around $520m in additional funds.

Further restructuring includes the sale of slots at New York/La Guardia and Washington/National airports, aircraft engines and spare parts, flight simulators, ground equipment and real estate assets. The airline is also attempting to move away from its ULCC business model, attracting higher-yield customers and creating new revenue streams. (Photo Vincenzo Pace)

Azul, Abra sign merger MoU

BRAZILIAN CARRIER Azul Airlines and the Abra Group, owner of low-cost carrier Gol Linhas Aéreas Inteligentes, have announced the signing of a non-binding memorandum of understanding (MoU) regarding the exploration of a potential merger between the two carriers. The pair have been in talks since last year to strengthen their operations in the face of increased economic volatility in the region.

The MoU would see the two airlines retain their separate brands and operating certificates. However, other areas of the business would be combined to improve operational efficiencies and enhance the company's offering and products for customers. The two would then be listed under a single corporate identity.

The tie-up is subject to Gol successfully emerging from Chapter 11 bankruptcy restructuring, a process it has been under since January 2024. The MoU will not affect this process, which it expects to emerge from in May. Gol recently unveiled its revised five-year business plan, which would see it reduce its debts and expand its fleet to 169 aircraft by 2029. The airline also plans to invest significantly in its existing fleet to improve operational efficiencies in the short term.

If the merger goes ahead, it would create the country's largest airline, holding around 60% of the Brazilian domestic market, with a combined fleet of 327 aircraft. Azul currently operates a roster of ATR 72-600s, Airbus A330 and A320 Family jets, and Embraer E195s and E195-E2s. Meanwhile, Gol flies Boeing 737-700s, 800s and MAX 8s. However, Azul and Abra – which also owns Colombian flag carrier Avianca – must first agree on economic terms and gain the relevant approvals. (Photo Boeing)

Mexicana hits turbulence

THE REINCARNATION of Mexico's former flag carrier, Mexicana de Aviación, is to scale back its network after revealing losses of $50m for 2024. According to the Mexican newspaper *El Financiero*, the carrier will suspend services to eight destinations across the country, around half its overall schedule.

The routes that have been culled include Acapulco, Campeche, Guadalajara, Nuevo Laredo, Puerto Vallarta, Uruapan and Villahermosa. These flights have been operated under a wet lease agreement with TAR Aerolineas, a Mexican regional carrier based in Querétaro, with two Embraer ERJ145LRs. The company will continue operating in Chetumal, Ciudad Victoria, Ixtepec, Mazatlán, Mérida, Monterrey, Palenque, Tijuana, Tulum, and San José del Cabo.

However, the country's president, Claudia Sheinbaum, said in a press conference that it did not mean the end for the new Mexicana or pose a risk to the brand.

The airline recently celebrated its first anniversary, carrying more than 380,000 passengers during those 12 months of operations. It is run by the Mexican military after the country's government purchased the Mexicana brand a few years ago. It operates a fleet of three Boeing 737-800s, transferred from the Mexican Air Force.

In June 2024, it ordered 20 Embraer E2 jets, including ten E190-E2s and ten E195-E2s. Deliveries of the Brazilian-built aircraft are scheduled to begin in May this year, and the airline plans to receive four more by the end of 2025. (Photo Embraer)

Mesa sells Embraer jets to United

UNITED EXPRESS

MESA AIR Group will sell 18 Embraer aircraft to United Airlines in a sale and leaseback agreement, raising around $230m. The regional carrier said in a filing on January 7 with the US Securities and Exchange Commission that $142m of the funds raised will be used to pay off the carrier's debt.

Eight Embraer E175s were transferred to United on December 31, 2024, and the remaining ten will be moved by the end of February. Mesa will then lease back the 76-seat aircraft from United, which already operates for the US major.

Mesa has been a United Express operator since the early 1990s. The partnership was expanded in 2022 when United announced it was acquiring a 10% stake in Mesa and entering a five-year Capacity Purchase Agreement (CPA). In April 2023, its 30-year partnership with American Airlines came to an end, leaving United as its sole partner.

The Phoenix-based airline has also said it has entered a further deal with an undisclosed third party to sell 15 Bombardier CRJ-900s. This separate transaction is set to raise around $19m, which will be used to pay down a loan with the US Treasury. This deal is expected to be completed by the end of April 2025. (Photo Mesa Airlines)

US government sues Southwest

SOUTHWEST AIRLINES has been sued by the US Department of Transportation (DOT) for operating several "chronically delayed flights", violating the Federal Aviation Act and DOT regulations. The suit was filed with the United States District Court for the Northern District of California on January 15. Frontier Airlines was also fined $650,000 for the same reason on the same day. This followed JetBlue's $2m fine on January 3 for operating 145 chronically delayed flights between June 2022 and November 2023.

According to the DOT, a chronically delayed flight is one that has operated at least ten times per month and arrives 30 minutes late or more, more than 50% of the time. The Southwest flights in question – WN1767 between Chicago/O'Hare and Oakland and WN2556 between Baltimore and Cleveland/Hopkins – took place between April and July 2022. During this period, flight WN1767 was delayed on average from 69 to 87 minutes. Meanwhile, WN2556 had average monthly delays of up to 96 minutes. The DOT found that Southwest was responsible for the disruption on these routes more than 90% of the time.

US transportation secretary, Pete Buttigieg said: "As part of our commitment to supporting passenger rights and fairness in the market for airline travel, we are suing Southwest Airlines for disrupting passengers' travel with unlawful chronic flight delays. Airlines have a legal obligation to ensure that their flight schedules provide travellers with realistic departure and arrival times. Today's action sends a message to all airlines that the Department is prepared to go to court in order to enforce passenger protections."

Meanwhile, the Dallas/Love Field-based carrier has agreed to a sale-leaseback agreement with the US lessor Babcock & Brown Aircraft Management. The deal involves 36 of its Boeing 737-800s and is expected to generate $871m for the airline. (Photo Vincenzo Pace)

in brief

US regional carrier **Air Wisconsin** has announced that it is shifting its operation from scheduled flying for American Eagle to Essential Air Services (EAS) and charter flying. The agreement with the US mainline is set to end in April 2025, but the airline has said it will continue to offer codeshare and interline agreements for American. The airline currently operates a fleet of 60 Bombardier CRJ-200s.

Florida-based charter carrier **Global Crossing Airlines** is looking to grow its business model by opening a new airline based in Melbourne, Australia, in a joint venture with ATB Aviation Australia. The currently unnamed joint venture plans to launch operations by the end of 2025 with a fleet of A320 Family aircraft. Global Crossing, which launched operations in August 2021, now has a fleet of 18 A320 Family jets and views the Asia-Pacific region as a significant growth area. (Photo Global Crossing Airlines)

Southwest Airlines has signed a new interline agreement with **Icelandair** as it looks to expand its airline partnership portfolio. The new deal, which started in February 2025, will see connections offered at Baltimore initially, followed by Denver, Nashville and Washington.

Silver Airways has voluntarily filed for Chapter 11 bankruptcy protection in the US with the Bankruptcy Court for the Southern District of Florida. In an open letter to its customers, the regional carrier said it hoped to complete the process by the first quarter of 2025. The Florida-based airline will continue operations as normal as it aims to restructure up to $500m in debts.

BermudAir is set to double its fleet with the addition of two Embraer E190s in spring 2025. Offering over 600 miles more range than its current E175s, the larger narrowbodies will seat 96, offering greater capacity for passengers and cargo. The first example to arrive will be used as a dedicated spare, while the second will enable the airline to increase frequencies on its current routes and expand into new markets.

Starlux signs for **additional A350Fs**

TAIWANESE CARRIER Starlux Airlines has placed a firm order with Airbus for five additional A350F freighters, doubling its initial order made last year for five of the yet-to-be certified twinjet.

Starlux CEO Glenn Chai commented: "The cargo market is set to become a key element in our business model and will benefit from the advantages offered by Taiwan's geographical location. The A350F is the perfect choice for us, offering a similar payload-range capability as previous generation freighters, but with very significant reductions in fuel consumption and carbon emissions."

The new jets will be operated by Starlux Cargo on some of the world's busiest freight routes. Currently, the carrier operates an all-Airbus passenger fleet, comprising 13 A321neos, five A330-900s and eight A350-900s.

"We thank Starlux for its ongoing confidence in Airbus and its products," said Benoît de Saint-Exupéry, EVP for commercial aircraft sales at Airbus. "The A350F will fit seamlessly into the carrier's latest generation all-Airbus fleet, which offers unrivalled levels of technical and operational commonality. This second order from this fast-growing airline is another endorsement of the all-new A350F as the future game-changer in heavy lift markets."

Currently in development, the A350F is expected to be able to carry a payload of up to 111 tonnes with a range of 4,700nm. The new type also features the largest main deck cargo door in the industry, with fuselage length and capacity optimised around the sector's standard pallets and containers. (Photo Airbus)

Aircalin discloses A350 order

Aircalin
nouvelle calédonie

AIRCALIN, FLAG carrier of the South Pacific French territory of New Caledonia, has disclosed an order with Airbus for two A350-900s, doubling its widebody fleet which currently comprises a pair of A330-900s.

Aircalin CEO Georges Selefen said: "As a continuation of our longstanding partnership with Airbus, we have selected the A350-900 to join our fleet in the coming years. These aircraft are essential for operating our recently inaugurated Nouméa-Paris via Bangkok route. They will open the doors to very long-haul flights and enable Aircalin to pursue its development strategy."

The airline plans to configure its A350s in a three-class premium layout offering accommodation for more than 320 passengers. This would include an enlarged business class and represent an increase in capacity of 15% compared with the A330neo.

Benoît de Saint-Exupéry, EVP for commercial aircraft sales at Airbus, added: "We are pleased with Aircalin's decision to add the A350 to its fleet. This will allow Aircalin to further develop its potential and open up more long-haul routes. The order is yet another endorsement of the A350 as the undisputed long-range leader, bringing fuel efficient service on some of the world's longest networks, while offering passengers the highest levels of comfort."

Alongside its two A330neos, Aircalin also operates a pair of A320neos. (Photo Airbus)

China Airlines' widebody shopping spree

TAIPEI-BASED CHINA Airlines has revealed plans to order 24 widebody aircraft in a deal valued at nearly $12bn. The flag carrier has signed commitments for ten Airbus A350-1000s, ten Boeing 777-9s and four 777-8Fs. A statement by the airline read: "The new fleet is expected to begin deliveries in 2029 and will be used for long-haul passenger and cargo routes to North America and Europe."

Breaking down the costs in a Taiwan Stock Exchange filing, the firm revealed each A350 is priced at $448m, while the 777-9s and 777-8Fs are valued at $530m and $519m, respectively.

The European-built widebodies will be powered by the Rolls-Royce Trent XWB-97 engine, while the 777Xs will be equipped with the General Electric GE9X powerplant. Inside, the new fleet will be configured in a three-class layout featuring business, premium economy and economy cabins.

China Airlines ended 2024 with a fleet comprising 82 aircraft, including 14 A321neos, 16 A330-300s, 15 A350-900s, ten 737-800s, eight 747-400Fs, ten 777-300ERs and nine 777Fs. According to its fleet plan, the carrier will end this year with the same size roster, but its A330 and 737-800 contingent will be reduced to ten and eight, respectively. Meanwhile, during 2025 the carrier is expecting to receive its first two 787-9 Dreamliners, as well as five more A321neos and a single 777F. (Photo Vincenzo Pace)

CHINA AIRLINES

Korean Air completes Asiana acquisition

SEOUL-BASED KOREAN Air has completed the acquisition of rival Asiana Airlines, four years after first announcing the move. On December 12, 2024, the flag carrier acquired 131,578,947 newly issued shares in Asiana, representing a 63.88% ownership stake and making Asiana a subsidiary of Korean Air. The completion follows Korean Air's payment of £450m to Asiana Airlines on December 11, concluding the share purchase transaction. This brings the total investment to £847.4m. Asiana was due to hold an extraordinary general meeting of shareholders on January 16 to appoint new board directors nominated by Korean Air.

The flag carrier plans to complete the integration with Asiana within two years. The strategy includes network optimisation through diversified flight schedules on overlapping routes, service expansion to new destinations and enhanced safety investments. A statement issued by Korean Air, said: "The merger aims to strengthen national aviation industry competitiveness, enhance Incheon Airport's hub capabilities and expand global network reach". According to the flag carrier, the integration will proceed "without workforce restructuring" and the combined organisation "projects natural staff growth through business expansion, with employees in overlapping functions being reassigned".

As part of the deal, Korean Air will create a single low-cost carrier under its existing Jin Air brand, subsuming Asiana's budget airlines Air Busan and Air Seoul. The enlarged carrier will serve as direct and stronger competition for Jeju Air and T'Way. To satisfy competition concerns, Asiana has been forced to offload its cargo division to Air Incheon.

The combined fleet totals more than 200 airframes. Asiana's passenger roster comprises 24 A321s, 14 A330s, 15 A350s, six A380s, a single 767 and nine 777s. Meanwhile, Korean Air has ten A220s, 15 A321s, 19 A330s, two A350s, seven A380s, 24 737s, 17 747s, 46 777s and 20 787s. (Photo Vincenzo Pace)

Jeju crash **investigation** continues

INVESTIGATIONS ARE continuing in South Korea into the fatal crash involving a Jeju Air Boeing 737-800 at Muan International Airport on December 29, 2024. The aircraft, HL8088 (c/n 37541), performing flight 7C2216 from Bangkok/Suvarnabhumi to Muan with 175 passengers and six crew, landed on runway 19 at the airport with all of its landing gear up, before overrunning the runway and impacting a concrete embankment. Only two people were rescued alive, with authorities confirming they were cabin crew members seated at the rear of the aircraft.

A Jeju Air statement release shortly after the crash, said: "We are deeply saddened to confirm that a tragic accident occurred on December 29th, resulting in the loss of lives... We are committed to providing every possible support to those affected and fully co-operating with the authorities in their investigation. The safety and well-being of our passengers and staff are always our top priority, and we are reviewing all procedures to prevent such a tragedy from happening again."

The investigation is being led by the country's Aviation and Railway Accident Investigation Board (ARAIB), with assistance from the US National Transportation Safety Board (NTSB). On January 6, South Korea's Ministry of Transport confirmed the cockpit voice recorder (CVR) transcript had been completed on January 4, while the flight data recorder (FDR) had been sent to Washington DC for analysis by the NTSB. Five days later, the Ministry confirmed both the CVR and FDR stopped recording about four minutes before impact.

The installation of concrete structures at the end of runways dominated public discourse following the crash. On January 13, the country's transport ministry confirmed that structures such as concrete mounds for ILS antenna will be replaced or removed.

A preliminary report released on January 27 confirmed investigators have found evidence of a bird strike in both engines. The inquiry will now focus on the role of the bird strike and the concrete structure. The report said the engines will be torn down.

C919's **Hong Kong** debut

CHINA'S DOMESTICALLY-PRODUCED COMAC C919 narrowbody airliner made its first scheduled flight outside of the mainland when a China Eastern Airlines example flew between Shanghai/Hongqiao and Hong Kong on January 1, 2025.

C919-100STD, B-657T (c/n 00015), replaced an Airbus A321/A330 on flight MU721, which is a daily service. The airline – which currently fields a fleet of ten C919s – was the launch customer for the type when its accepted the first example on December 8, 2022. Flight MU721 departs Hongqiao at 0815hrs and arrives in Hong Kong at 1050hrs. The return sector, MU722, leaves at 1155hrs and lands back in Shanghai at 1355hrs.

The airline's C919s are configured to seat 164 passengers in a two-class layout with eight reclining business class seats and 156 economy seats. Air China and China Southern Airlines are the only other carriers currently operating the domestically-produced Chinese jet, with three apiece.

Powered by CFM International LEAP-1C engines, the C919 is designed to compete directly with the Airbus A320neo and Boeing 737 MAX. Currently, it is only certified to fly within China, but it is reported that COMAC is aiming for European Union Aviation Safety Agency (EASA) certification before the end of 2025. (A full report on Chinese airliners can be found on page 60).
(Photo China Eastern Airlines)

in brief

Cambodia Angkor Air, flag carrier of the Southeast Asian nation since 2009, began the new year with a new name when it rebranded itself as Air Cambodia on January 1. The Phnom Penh-based airline has a five-strong fleet comprising two ATR 72-500s, a pair of A320-200s and a single A321-200. Last December, ATR revealed it had sold three ATR 72-600s to the carrier, with deliveries scheduled this year.

Following the lifting of EASA's ban on **Pakistan International Airlines** (PIA) in November 2024, the flag carrier operated its first flight to Europe in four years on January 10, 2024. Flight PK749 – operated by Boeing 777-240ER, AP-BGK (c/n 33776) – linked Islamabad with Paris/Charles de Gaulle. The route is being served twice-weekly. UK and US regulators have yet to clear PIA to resume flights.

Maldivian, the national carrier of the Maldives, has begun widebody operations for the first time after taking delivery of an Airbus A330-200. The 14-year-old ex-KLM airframe, 8Q-IAB (c/n 1161), was handed over to the Malé-based airline on January 2, 2025. The aircraft, which is configured with 264 seats in a three-class layout, is being used initially to launch long-haul flights to three Chinese cities: Beijing, Shanghai and Chengdu. The airline plans further expansion to Europe and South Africa. (Photo Maldivian)

Hong Kong's Cathay Group, comprising **Cathay Pacific** and **HK Express**, celebrated carrying more than 100,000 passengers in a single day, the most since the start of its post-COVID-19 rebuild. On December 15, 2025, the Group's airlines carried a combined total of 100,856 passengers. It broke the milestone seven more times during the month.

Mongolia's **Hunnu Air** plans to take delivery of a leased Embraer E195-E2 in March, according to *ch-aviation*, which cited Singapore-based analyst Brendan Sobie. The carrier currently has a three-strong fleet comprising a single ATR 42-500 and two Embraer E190s. Hannu Air flies to six destinations from its Ulaanbaatar/Chinggis Khaan base. These are Beijing in China, Almaty in Kazakhstan, Ordos, Manzhouli, and Baotou in Inner Mongolia and Marun in Mongolia.

Airbus trounces Boeing... again

LAST YEAR produced a mixed bag for the major manufacturers, with contrast greatest at the two largest – Airbus and Boeing – where for the sixth year in a row Airbus bested its US counterpart.

The European manufacturer had set itself a target of 770 aircraft, but ended 2024 just short at 766, up 4% on 2023, delivered to 86 customers, with 88% of those being narrowbodies. It handed over ten A220-100s, 65 A220-300s, nine A319neos, 232 A320neos, 361 A321neos, 30 A330-900s, 44 A350-900s, 13 A350-1000s, plus two A330MRTTs (Multi Role Tanker Transport). The A320 and A321 deliveries made up 77% of the company's production – more than 11 aircraft each week. There was no let up at the Toulouse-based constructor, which delivered two airframes on Christmas Eve, two on Boxing Day and three on New Year's Eve.

Among the airlines, IndiGo topped the charts, receiving 24 A320neos and 34 A321neos, which increased its fleet to 434. In Europe, Wizz Air received 31 A321neos, while fellow low-cost carrier easyJet accepted 18 A320neos. Elsewhere, Pegasus Airlines received 16 A321neos, and both Iberia and Aer Lingus welcomed their first A321XLRs. Ethiopian Airlines received three A350-1000s and became the first to base the type in Africa, while Emirates welcomed its first two A350-900s – the first new type to join its fleet since 2008 (see *Airliner World*, February 2025).

Across the Atlantic, US-based carriers were busy receiving narrowbodies, including 11 A220-300s for Breeze Airways and 18 A220-300s for JetBlue as the latter continues to evolve its fleet. Delta Air Lines welcomed five A220-300s, plus 21 A321neos, while Frontier Airlines took 23 A321neos and United Airlines accepted 25 of the type. In the widebody sector, Lufthansa received seven A350-900s, Turkish Airlines accepted eight, and Delta welcomed seven to its fleet, along with five A330-900s.

Airbus registered 826 net new orders across 2024, including 78 A330neos and 142 A350s, well down on the 2,094 net orders secured in 2023. Its year-end backlog stood at 8,658 aircraft, which included 7,210 A320 Family airframes. Christian Scherer, CEO of Commercial Aircraft at Airbus, said: "Given the complex and fast-changing environment in which we continue to operate, we consider 2024 a good year. It has been a massive team effort to deliver this result."

Across the Atlantic, Boeing delivered 348 airframes, of which 335 were commercial aircraft – 36% down on its 2023 production – delivered to 60 customers, with 66% of those being narrowbodies. Its delivery output slumped last year as it worked through manufacturing issues created by the Alaska Airlines mid-cabin door plug blow out. Incoming CEO Kelly Ortberg began work on August 8, then endured a 53-day strike by 33,000 machinists in September, announced 17,000 redundancies in October and postponed the launch of the 777X, all of which affected operations and generated another reputational blow.

Nevertheless, it still delivered 260 737 MAXs, ten 767-300Fs, one 777-300ER, 13 777Fs, one 787-8 Dreamliner, 29 787-9 Dreamliners, 21 787-10 Dreamliners and 13 civil-derived military aircraft. Among airlines, deliveries of any magnitude involved the 737, with Ryanair receiving 36 737 MAX 8-200s, Southwest Airlines welcoming 22 737 MAX 8s, Air India Express accepting 27 737 MAX 8s, while United Airlines inducted 27 737 MAX 8s and six 737 MAX 9s.

Boeing registered 377 net new orders across 2024, with a gross figure of 569, well down on the 1,456 orders secured in 2023. Its year-end backlog stood at 5,595 aircraft, which included 4,303 737s. On January 14, when it released its 2024 figures, the Seattle-based airframer stated: "Our focus remains on strengthening safety, quality and stability across our production system."

Elsewhere, Embraer delivered 206 aircraft during 2024, a 14% rise on the 181 of the previous year. Commercial deliveries totalled 73, which was 11% up on 2023 and within the São Paolo-based manufacturer's expected range, including 39 E195-E2s, eight E190-E2s and 26 E175s.

Airbus and Boeing deliveries - 2023 vs 2024

Aircraft family	2023	2024	% change
Airbus			
A220	68	75	+10%
A320	571	602	+5%
A330	32	30	-6%
A350	64	57	-11%
Total	735	764	+4%
Boeing			
737	396	260	-34%
767	32	10	-69%
777	26	14	-46%
787	73	51	-30%
Total	527	335	-36%

Order uplift for Islander

BRITTEN-NORMAN HAS signed a letter of intent (LOI) with Evia Aero for 15 new BN-2 Islanders. Delivery is scheduled to commence at the beginning of 2027 with each airframe scheduled for later conversion to zero-emissions hydrogen fuel-cell propulsion systems being designed by Cranfield Aerospace Solutions (CAeS) as part of Project Fresson. The collaboration between the Lee-on-Solent-based manufacturer and the German start-up airline includes a redesign of the Islander's interior to increase "passenger comfort and functionality, as well as ensuring compatibility with sustainable aviation technologies."

The news comes hot on the heels of an LOI in November 2024 for four examples from the Falkland Islands Government and is a further boost for the manufacturer, which was saved from administration by 4D Capital Partners in March 2024. William Hynett, chief executive at Britten-Norman, said: "The adaptability of the Islander aircraft, combined with our commitment to a green future, provides us an opportunity to lead the way in sub-regional, zero-emission aviation."

Bremen-based start-up Evia Aero said it is dedicated to transforming European travel through sustainable and carbon-neutral aviation, "connecting European economic hubs and offering passengers a climate-neutral and time-saving alternative." CEO Florian Kruse said: "We are fully committed to the Britten-Norman Islander. It is important to us to use a product that is already in use worldwide and has proven itself. We will make the aircraft available to our customers– with a revised customised cabin design."
(Photo Cranfield Aerospace Solutions)

Airbus Deliveries

China Eastern Airlines accepted delivery of Airbus A320neo, B-32LF (c/n 12352), on December 30 after a ferry flight from Hamburg/Finkenwerder to Shanghai/Pudong via Astana. Configured to carry 164 passengers in a two-class cabin, it is one of 116 examples in the airline's fleet AIRTEAMIMAGES.COM/JAY LEE

Airbus delivered the following aircraft in December:

A220-100	2	Air Lease Corporation [Bulgaria Air]; ITA Airways
A220-300	8	JetBlue Airways (2); Breeze Airways; Air Lease Corporation [ITA Airways]; Azorra [Animawings] (2); Air Lease Corporation [Croatia Airlines]; Air France
A319neo	3	Private Customer; China Southern Airlines (2)
A320neo	34	China Southern Airlines; China Eastern Airlines (6); CMB Financial Leasing [Hainan Airlines] (3); ICBC Leasing [Vietnam Airlines]; CDB Leasing [Hainan Airlines] (2); Spring Airlines; SMBC Aviation Capital [Sky Airline] (3); LATAM Airlines Group [LATAM Airlines Brasil] (2); Qantas Airways [Jetstar Airways]; BOC Aviation [LATAM Airlines Group]; Avolon [Royal Jordanian]; easyJet (2); Juneyao Air; Saudia [flyadeal]; AerCap [Transavia]; JetSmart Chile; AerCap [Sichuan Airlines]; Avolon [FlyArystan]; BOC Aviation [LATAM Airlines Brasil]; ICBC Leasing [Vietnam Airlines]; CALC [Sichuan Airlines]; LATAM Airlines Group
A321neo	55	China Southern Airlines (3); Frontier Airlines (3); VietJet Air (4); Wizz Air (2); China Eastern Airlines (2); IndiGo (9); JetBlue Airways; Volaris; AirAsia (2); Jet2.com; United Airlines (4); Korean Air (2); CDB Leasing [KLM Royal Dutch Airlines] (2); ICBC Leasing [Jet2.com]; AerCap [AirAsia]; Cathay Pacific Airways [HK Express]; Transavia; Pegasus Airlines; Saudia (2); Aer Lingus (2); Delta Air Lines; Asiana Airlines; American Airlines; Cathay Pacific Airways; JetSmart Chile; Spirit Airlines; AerCap [Turkish Airlines]; Aegean Airlines; Cebu Pacific; Qantas Airways [Jetstar Airways]
A330-900	6	Kuwait Airways; Cebu Pacific; Air Lease Corporation [Virgin Atlantic Airways]; NAS Aviation Services [Corsair]; NAS Aviation Services [Condor]; Delta Air Lines
A350-900	10	Starlux Airlines (2); Sichuan Airlines; Finnair; Delta Air Lines; Lufthansa (2); Korean Air (2); Emirates
A350-1000	4	Japan Airlines; Ethiopian Airlines (2); Air Caraibes
Total	122	
Annual total to date	764	

EasyJet paints by numbers

EASYJET HAS become the first airline to trial a new state-of-the-art lower-weight paint, which will enable it to make fuel savings. In conjunction with Mankiewicz Aviation Coatings, the Luton-based carrier has developed a new system that reduces the amount of paint needed to create its livery. The process has been applied to 38 aircraft and will be rolled out across the entire fleet by 2030. It saves 27kg of paint per aircraft and is expected to save 3.6 tonnes of fuel and 11.3 tonnes of CO2 emissions per aircraft based on 1,800 sectors flown per year. Across the entire fleet this should account for a 1,296 tonne fuel reduction, equivalent to a 4,095 tonne reduction of carbon emissions.

This is one of several incremental steps the airline said it is taking to reduce the weight of its aircraft and one of many initiatives it is using to reduce emissions and fuel burn. Lahiru Ranasinghe, director of sustainability at easyJet, said: "While this forms a small part of a bigger strategy, [it] exemplifies how we're assessing every single part of our operation to find efficiency gains to help us achieve this mission."

Andrew Richardson, aviation sales manager at Mankiewicz Aviation Coatings, said: "We took the project one step further by optimising the colour formulations in order to minimise the amount of 'paint film build' needed to achieve the colours." (Photo easyJet)

Boeing Deliveries

Shanghai Airlines accepted delivery of Boeing 787-9 Dreamliner, B-220K (c/n 63720), on December 28 after a ferry flight from Everett Field to Shanghai/ Pudong. Configured to carry 285 passengers in a four-class layout, it is one of nine examples in the airline's fleet AIRTEAMIMAGES.COM/DIPANKAR BHAKTA

Boeing delivered the following aircraft in December:

737 MAX	17	Air China; Air India; Air Lease Corporation; Allegiant Air; American Airlines (2); Copa Airlines; Dubai Aerospace Enterprise; GOL Linhas Aereas (3); Shenzen Airlines; Southwest Airlines (2); TUI Airways; United Airlines (2)
767-300F	1	FedEx Express
777-300ER	1	Altavair [Ethiopian Airlines]
787-9	6	AerCap; China Eastern Airlines; Qatar Airways; Royal Air Maroc; United Airlines (2)
787-10	2	Air France-KLM; Air Lease Corporation
Total	27	
Annual total to date	335	

Boom goes supersonic

BOOM SUPERSONIC achieved supersonic flight with its XB-1 demonstrator during a test flight over the Mojave desert in Southern California on January 28.

During the flight from Mojave Air & Space Port, the jet achieved speeds of Mach 1.122. It also reached an altitude of 35,290ft, its highest yet, during the 34-minute sortie. XB-1 was flown by chief test pilot Tristan 'Geppetto' Brandenburg, who said that it had been a "privilege and a highlight of my career to be part of the team that achieved this milestone." The demonstrator was joined by a Dassault Mirage F1 that served as chase aircraft and a Northrop T-38 that took publicity photographs and provided live footage of the historic event.

"XB-1's supersonic flight demonstrates that the technology for passenger supersonic flight has arrived," said Boom Supersonic founder and CEO Blake Scholl. "A small band of talented and dedicated engineers has accomplished what previously took governments and billions of dollars. Next, we are scaling up the technology on XB-1 for the Overture supersonic airliner. Our ultimate goal is to bring the benefits of supersonic flight to everyone."

Previously, XB-1 had reached speeds of Mach 0.95 which is considered 'transonic', the transitional speed between subsonic and supersonic flight.

XB-1's flight trials are intended to inform Boom's design of its Overture airliner, which is designed to carry 64-80 passengers at Mach 1.7. (Photo Boom Supersonic)

End of the line for 777-300ER

THE END of 2024 may well have witnessed the final delivery of a Boeing 777-300ER, as production ended and slipped quietly into history without any public fanfare. The 777-31BER, ET-BBG (c/n 65420), was built for China Southern Airlines and first flew on January 20, 2020, though the order was never completed. It was later stored at Victorville, 100 miles northeast of Los Angeles, until December 10, 2024, prior to its overnight ferry flight to Addis Ababa, where it entered service with Ethiopian Airlines on December 12, on lease from Altavair. It was delivered with a hybrid livery incorporating a China Southern cheatline and plain white vertical stabiliser.

The last built 777-300ER rolled off the line in May 2021 as VP-BFC (c/n 65312) and was delivered to Aeroflot, with which it still operates. Soon after the Russian invasion of Ukraine, its Bermudan registration was removed and it was re-registered in Russia as RA-73141.

Boeing has five unfilled orders for the 777-300ER, all slated for Pakistan International Airlines and dating from 2012. But with the Karachi-based carrier having parked six of its existing 12 777s and facing financial challenges, it would seem this order is likely to remain unfulfilled.

The 777-300ER was introduced in 2004 and 833 examples have been delivered, with the entire 777 programme proving to be the most built widebody of all time, comprising 1,741 aircraft since assembly began in 1993. Production of the 777F continues, with 76 orders yet to be fulfilled. (Photo Dominik Csordás)

London calling

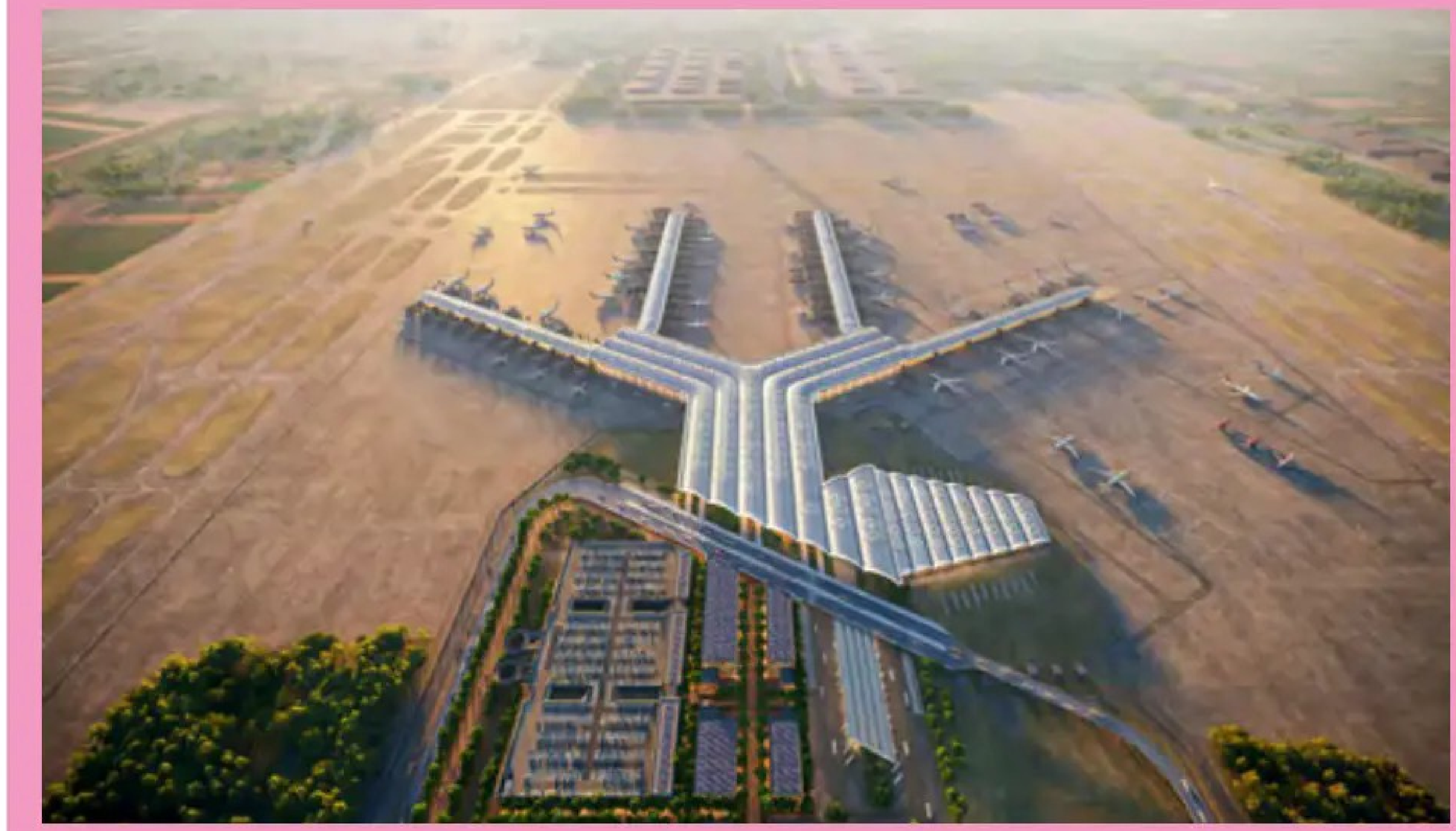
THE SEEMINGLY never-ending debate surrounding airport expansion in the UK rumbles on as the government examines proposals by three London gateways. In a bid to boost economic growth across the country, London/Heathrow's third runway has now been backed by UK chancellor Rachel Reeves, who said the expansion of Europe's busiest airport was "badly needed". Meanwhile, London/Gatwick's plans to bring its standby runway into use and London/Luton's bid for a new terminal and increased passenger numbers could also be approved in the coming months. Expansion plans at Stansted and City airports have already been given the green light.

The previous government approved plans for a third runway at Heathrow in principle. The airport has yet to submit a complete planning application, and bosses are expected to reveal a less ambitious project than previously put forward. Prime Minister Kier Starmer voted against the plans in 2018. There is also strong opposition from energy secretary Ed Miliband and London's mayor Sadiq Khan.

Gatwick is planning to convert its existing northern runway (08L/26R), currently used as a taxiway, into a regular runway. This forms part of a £2.2bn expansion project that would see the airport capable of handling 75 million passengers per year by the late 2030s. The government is set to decide on these plans by February 27.

Meanwhile, transport secretary Heidi Alexander has until April 3 to approve or reject Luton's bid. Its proposal includes a new terminal and new taxiways to grow annual passenger numbers from 18 million annually to 32 million. The airport's CEO, Alberto Martin, said that the expansion would create thousands of jobs and that "making the best use of existing infrastructure" fully aligned with the government's sustainable growth agenda. However, there are concerns regarding additional noise over the Chiltern Hills, a designated area of outstanding natural beauty. (Photo Heathrow Airports Limited)

Poland's new **airport hub** site secured



PLANS FOR a new international hub in Poland have moved a step closer after the country's government decided on a location for the new central multimodal transport infrastructure super project. Currently named Centralny Port Komunikacyjny (CPK), it includes a new airport, high-speed rail links and road connections and will be strategically located between the Polish capital, Warsaw, and the city of Łódź. It aims to position Poland as a central aviation hub for Europe, "enhancing connectivity, providing seamless links between the airport, major cities and regional transport networks, ensuring the hub becomes a central pillar of both air and land transportation in the region".

The first stage of CPK is set to open in 2032 and will initially serve 34 million passengers per year with "scalable expansion planned on market growth." The latest forecast by the International Air Transport Association (IATA) states that the airport should be prepared to handle more than 40 million passengers by 2040.

The airport, which will eventually take over the commercial operations of Warsaw/Chopin, will feature two parallel runways, with the "primary focus on the development of long-haul traffic, driven by transfer passengers." Maciej Lasek, secretary of state for infrastructure, said that CPK was crucial to the county's aviation future as "without well-planned investments at Chopin, we would face stagnation in hub traffic development until 2032. This would result in a smaller network of connections, restricted growth for LOT Polish Airlines and weakened economic development."

IATA also estimates that air cargo demand at CPK will grow to around 200,000 tonnes by 2030, from approximately 128,000 tonnes in 2024, and reach nearly 1.5 million tonnes by 2060.

The airport site, along with part of the rail hub, will cover a massive 2,585 hectares and, so far, 1,188 hectares of land for the project has been acquired through a voluntary property acquisition programme. The next step will be securing building approval, with construction set to commence imminently. Polish Airports (PPL) has also agreed to take a 49% share in the new facility and collaborate on its construction. The project has an estimated construction cost of £8.7bn. (Photo CPK)

Newquay adds ACL partnership

CORNWALL AIRPORT Newquay has announced a partnership with Airport Coordination Ltd (ACL) to enhance its operations through data collection services. The three-year agreement started in December 2024.

ACL, based near London/Heathrow, is the world's first independent slot co-ordinator and provides schedule facilitation and data collection services to airports worldwide. Cornwall Airport Newquay is ACL's 76th airport worldwide and the 27th in the UK.

Amy Smith, head of commercial at the airport, said they were excited to partner with ACL as the facility works to expand its route network and enhance its operations: "This collaboration comes at a crucial time, as demand for travel to and from Cornwall grows." The regional airport has seen demand rise in recent years, handling more than 400,000 passengers and 20,000 aircraft movements in 2023/2024.

Neil Garwood, ACL's CEO, added: "We are thrilled to begin our partnership with Cornwall Airport Newquay, an essential gateway connecting Cornwall and South West England to the wider world. This three-year agreement reflects our shared commitment to optimise capacity while maintaining a personalised, high-quality experience for every passenger and airline. We are proud to support Cornwall Airport Newquay's mission of improving connectivity and driving growth in this beautiful part of the UK." (Photo Cornwall Airport Newquay)

Sky View

Insights and opinions on the industry's hottest topics

By Jonathan Hinkles, 30-year UK airline executive

"Fortune favours the bold" has been a mantra in our society ever since Roman times, a go-to cliche for the entrepreneurs of today. Yet when it comes to developing the flight technologies of the future, it's becoming more a question of boldly losing a fortune. Fallout in the eVTOL and green propulsion sectors is gathering pace.

Three companies have already fallen by the wayside after collectively spending more than $1bn of investors' cash. Universal Hydrogen, which had aimed to convert existing aircraft types such as the ATR turboprop to hydrogen propulsion, went out of business last autumn after exhausting $100m in funding. Lilium, which spent more than $500m developing an electric small jet perhaps inspired by 1960s *The Jetsons* cartoons, filed for insolvency in November. Volocopter, pushing an eVTOL contraption best described as a drone with an underslung cabin for two occupants, also gobbled through $500m before beginning insolvency proceedings in late December. A few others also face a less-than-certain future.

The market has been awash with letters of intent [LOIs] and memoranda of understanding (MoUs) between the developers of these futuristic-looking machines, airlines and start-ups seeking to become the "Uber of the skies". Outline commitments for 20, 50, 100 machines have been forthcoming, often from big names in the industry. Unlike conventional orders, very few of those have been backed by any financial commitment such as a deposit. The sole purpose of these confetti LOIs has been to enable the developers to show promise to potential investors and thus keep the lifeblood of cash flowing into their projects. With more than $1bn now gone, this merry-go-round has proven to be a losing bet for many investors.

For those still standing in the race to produce the technologies on which the future of net zero flying depends, the exit of rivals from the market would ordinarily be good news. However, recent failures will instead have a much broader impact on the appetite of investors to continue ploughing vast sums of money into even the most promising of the projects.

A key question will be how much more funding will it take to move each project from its current status to taking flight as a fully-fledged, certificated programme. If the answer is that outlay to date represents only a third or half of the likely eventual total, investors may well decide to cut and run, leaving more nascent projects facing insolvency. I believe that the field of players will narrow further before we see a single fare-paying passenger set foot aboard the first one of these new aircraft.

So where does all this leave the aviation sector in its race to net zero? We are already beginning to see some of the more realistic major players acknowledge that achieving this by 2050 will be challenging. Indeed, at a recent UK conference on aviation decarbonisation, IAG's widely-respected head of sustainability indicated that the airline group would likely have residual emissions by 2050. A cold dose of such reality, no matter how unwelcome, will ultimately help to drive other innovations.

Excellent progress is being made on the ground with clean energies across airports and airline operations, where it's far easier (and faster) to make a difference than in the air. Yet perhaps it's to the ground that we should increasingly look for solutions to emissions in the air, too. Albeit on a very small scale, the first direct air carbon capture schemes are now operating, filtering vast quantities of air to separate out CO_2 and either storing it underground or using it in the manufacturing process for new synthetic fuels including sustainable aviation fuel [SAF]. The key here is whether these emerging technologies can be scaled up several thousand times into a practical, viable business to complement use of SAF and hydrogen to propel our aircraft. Other steps such as contrail avoidance would rapidly lessen the impact of aviation on global warming and is a promising and relatively inexpensive way to quickly make a difference. I think it deserves far greater prominence in the ongoing debate.

What's clear to me is that the answer to our environmental challenges does not lie in continuing to plough huge sums of investment into urban air mobility to put more vehicles carrying only a handful of people at a time across the sky. We also face the not-inconsiderable problem that this is *global* warming and it's a *global* problem. Action in the UK and Europe alone is creditable but insufficient. The environmental effects of flying simply don't register in many other parts of the world. One US airline executive expressed frustration to me last year that an aircraft manufacturer only ever seemed to talk about its environmental initiatives: "Over here, nobody cares about that stuff." This highlighted the distance we have to travel, both in terms of technology and, just as importantly, attitudes. AW

> "What's clear to me is the answer to our environmental challenges does not lie in continuing to plough huge sums of investment into urban air mobility"

A day to remember

After 42 years of British passenger operations, Jet2 had the honour of operating the Boeing 757's final scheduled flights in January. *Airliner World's* **Lee Cross** and **Thomas Haynes** were on board to experience the historic occasion

Jet2 flight LS811 taxiing past Terminal 2 at Geneva ahead of the last-ever flight back to Manchester KEY-THOMAS HAYNES

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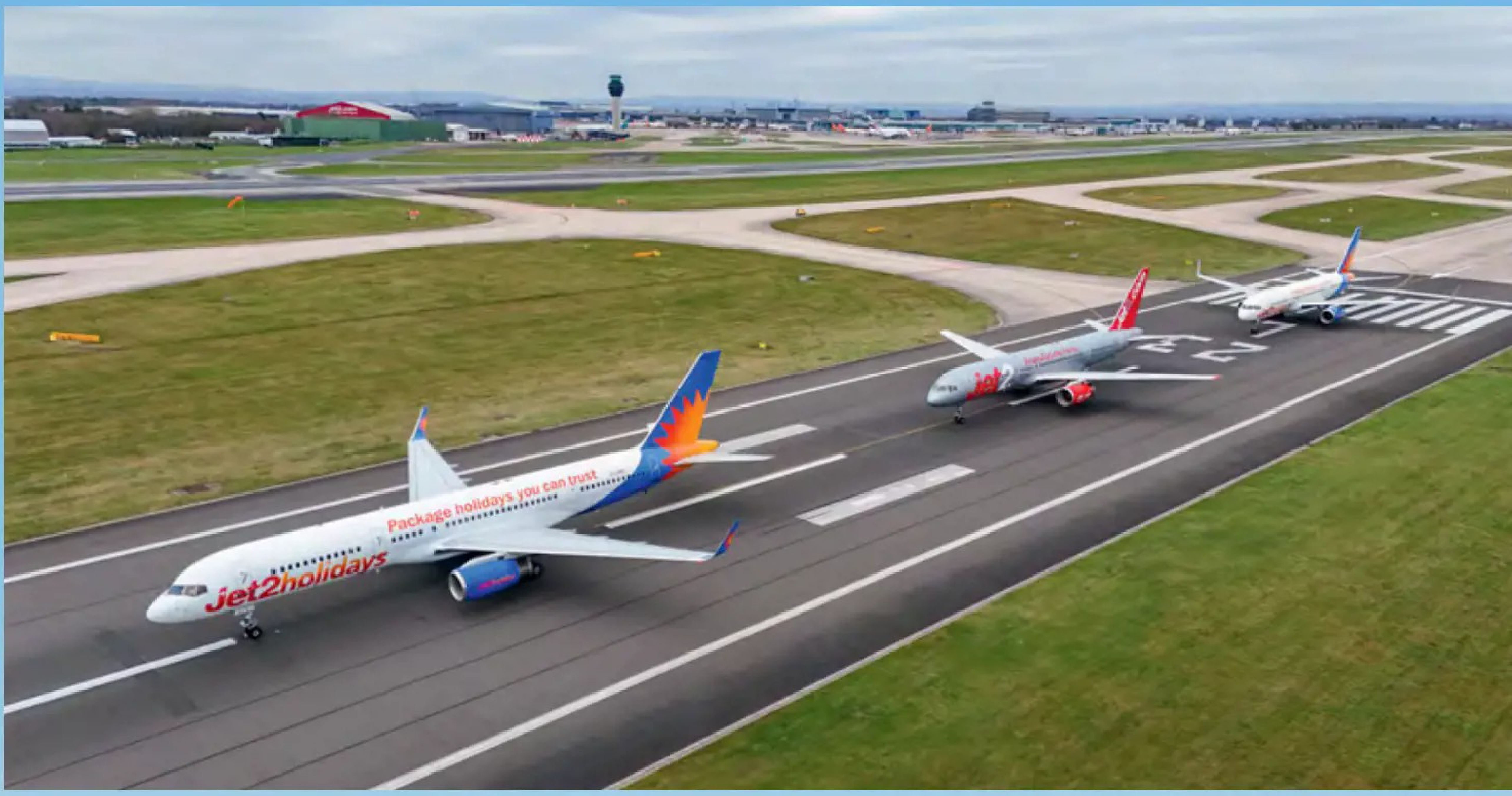
Jet2's history with the Boeing 757 began in 2005, just two years after the airline's launch, when it acquired G-LSAA and G-LSAB. The following year, after seemingly being bitten by the bug, it acquired seven more 757s – G-LSAC through to AI.

Following the arrival of the tenth airframe, G-LSAJ, in May 2008, that October saw Jet2 launch direct flights to New York from its Leeds Bradford base using the 757. Initially operating four services during November and December, it was soon expanded across its other UK hubs. Alpha Kilo arrived in January 2010, followed by Alpha Lima and Alpha Mike in February and March 2011, respectively.

The latter pair left the fleet in October 2012 and were transferred to US carrier Allegiant Air. The 14th example, Alpha November, arrived in May 2012. The retirement of Alpha Golf in November 2019 signalled the slow and steady exit of the 757 from the fleet, as they were withdrawn from use by the leisure carrier. In May 2023, the airline acquired its 15th and final 757, G-LSAO, which would never fly for the airline and was instead cannibalised for parts.

When TUI Airways retired its final 757 on October 3, 2021, it left Jet2 as the only remaining British passenger operator of the type. Just two months earlier, the latter had placed an order with Airbus for 15 A321neo aircraft, and the writing was on the wall for the Seattle Rocket.



ABOVE: ***The last three 757s to be retired by Jet2 lined up for a photoshoot on runway 23L at Manchester*** JET2

Final call for landmark flights

Amber weather warnings for snow and ice, and technical issues with the aircraft the previous day, meant that everything seemed to be against »

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G-LSAI
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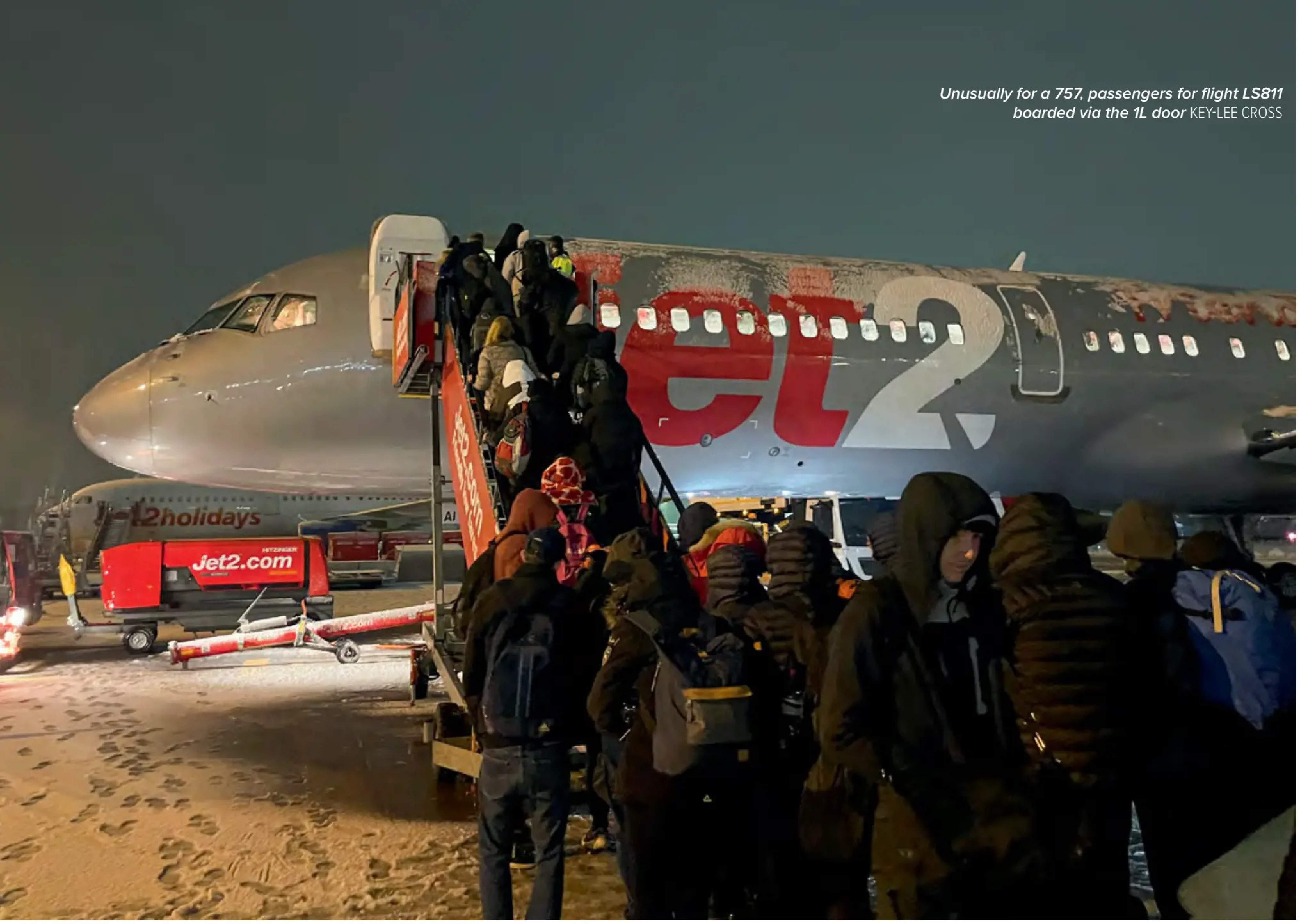
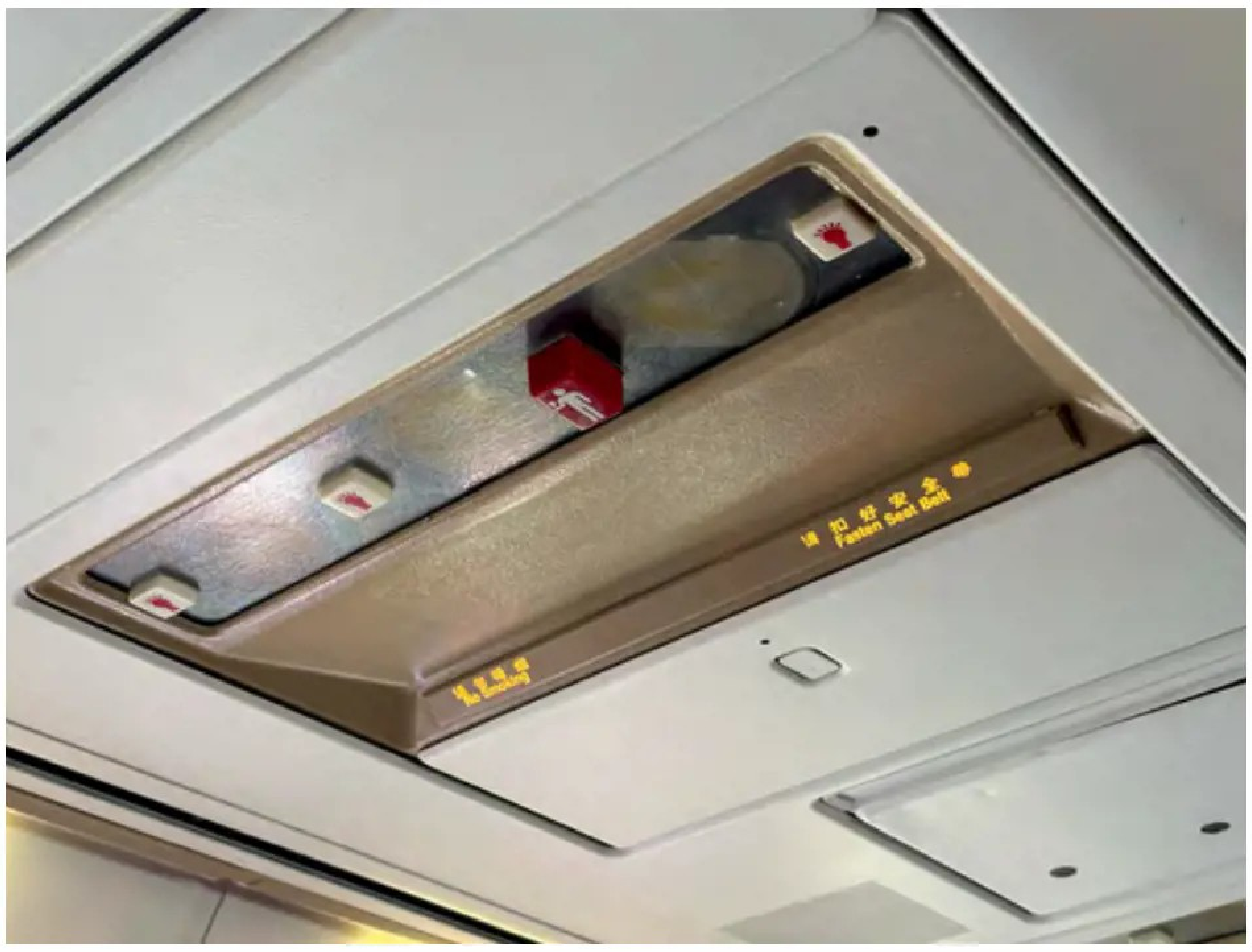


Unusually for a 757, passengers for flight LS811 boarded via the 1L door KEY-LEE CROSS

us for the penultimate 757 flight, LS811, from Manchester to Geneva on the morning of January 5, 2025 (Lee Cross writes). After a slow and somewhat treacherous drive, I sailed through security and soon found myself sitting in Terminal 2 departures with a large coffee, watching the snow get deeper across the airfield. Unsurprisingly, the airport announced that it had temporarily closed.

Despite the setback, boarding began promptly from gate B9 at 0555hrs. At the gate, it became clear what a moment in aviation history this was, as the mix of aviation enthusiasts and regular passengers came together. The latter, of course, had no idea what an occasion this was but as the two groups mingled and chatted, this quickly changed as both sides shared their memories of the iconic jet.

Our 757-21B, G-LSAI was parked on a remote stand. After boarding the bus, it was only as we crawled across the apron that the full extent of the snow became apparent. Then, out of the gloom, there she was. The oldest commercial passenger Boeing 757 still in service, looking resplendent in Jet2's silver and red livery, albeit covered in a blanket of snow. I was the first off the bus into the biting wind and snow that was now turning to sleet. Some people raced straight to the stairs, which were positioned, unusually for a 757, at door 1L. In the company of countless others, I tried to capture as many images as possible of the 37-year-old jet. Before



long though the cold had got to us all, and we edged our way up the stairs to the warm and inviting glow of the cabin. We were greeted by the exceptional cabin crew. All five senior cabin crew members had been with the company for many years and were specially selected by management for this historic occasion.

I made my way down to seat 38A, located in the small cabin at the rear behind the mid-cabin toilets. Despite the aircraft's age, the interior was immaculate and a credit to the airline's engineering teams. The only thing that gave away Alpha India's history was the Chinese writing on the passenger service units from its CAAC/China Southern Airlines days.

With everyone onboard, the doors were closed and captain David Rix, who was joined in the flight deck by fellow captain Charlie Collier, made his welcome onboard PA. He broke the news that the airport was not expected to reopen until 0900hrs. There were the usual groans from the non-enthusiast passengers, but for many, it meant we could spend some extra time with this aviation icon. Sadly, the announcement did not mention that this was the final departure from the UK of a British-registered passenger 757. However, captain Collier (who was flying this sector) hinted at the occasion when he offered to open the flight deck to passengers while on the ground. Those of us who wanted to visit the business end were asked to press our call bells, and immediately, a wave of 'dings' went off, with the cabin ceiling alight at almost every row.

Outside, the ground crews were busy clearing the snow from the

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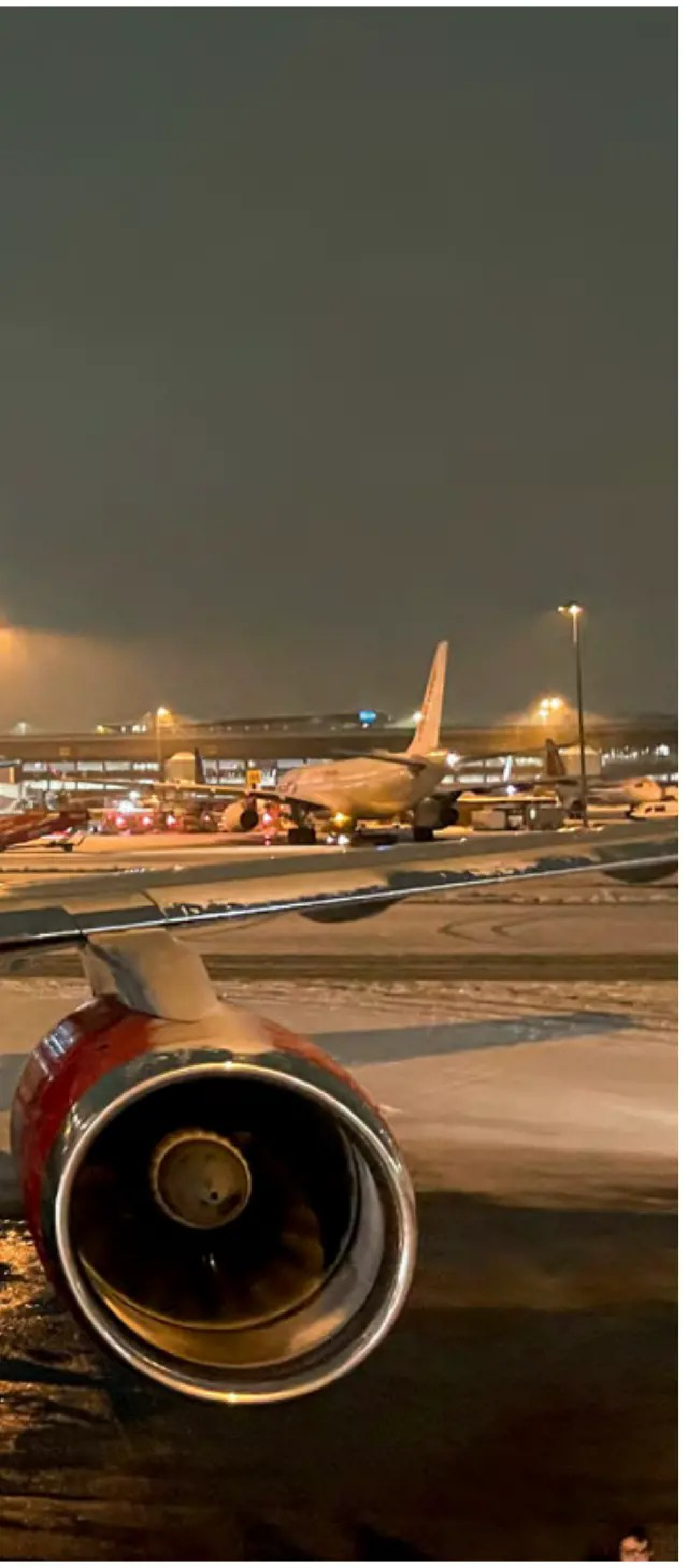
ABOVE: ***Lee was seated in 38A, which is positioned behind the mid-cabin toilets*** KEY-LEE CROSS

RIGHT: ***The only sign of the aircraft's previous life with CAAC/China Southern was the Chinese writing on the overhead passenger service units*** KEY-THOMAS HAYNES



LEFT: ***A snow-covered Alpha India ahead of her flight to Geneva*** KEY-LEE CROSS

RIGHT: ***With the snow and sleet continuing to fall, de-icing was required before departure*** KEY-LEE CROSS

LEFT: ***The descent into Geneva provided a great view of the Alps*** KEY-LEE CROSS

BELOW: ***At 37 years old, G-LSAI was the oldest passenger Boeing 757 in the world*** KEY-THOMAS HAYNES

airfield, and just after 0900hrs, the de-icing cherry picker arrived at the aircraft. Captain Collier informed the cabin that flight deck visits would now be suspended, much to the disappointment of those who had not yet had the privilege, including yours truly. Thankfully, we were then informed that we would be able to visit upon our arrival in Geneva.

De-icing complete, and after a slightly worrying moment when the steps returned to the aircraft – apparently to check a warning that the cabin door wasn't closed properly – we began our pushback a little after 0930hrs. The cabin crew carried out the obligatory safety demo "for this Boeing 757 Luxury Liner", and soon we were taxiing out to Manchester's now cleared runway 05L. An easyJet Airbus A320 beat us to be the first aircraft to leave that morning, and while we believed that we would be second, a short stop on the taxiway saw one of the Jet2's brand new A320neos, G-SUNG (c/n 11799), ironically the type that is replacing the 757, move ahead of us.

Then it was our turn. At 1003hrs, Alpha India lined up on the runway for the final time, (with passengers onboard at least). The Rolls-Royce RB211 engines were spooled up to

During the boarding for LS812, passengers on the first bus were afforded a considerable amount of time to take in the moment KEY-THOMAS HAYNES

G-LSAI
jet2.com

Jet2
Friendly L

LEFT: ***A view out the port side of the aircraft showcasing the smart red coloured engine nacelles with Jet2's signature silver inlet cowling*** KEY-THOMAS HAYNES

ABOVE: ***Blasting out of Geneva*** KEY-THOMAS HAYNES

full power while the brakes were held; a standard procedure owing to the runway surface conditions. After a few moments, the brakes were released and we were pinned into our seats as the aircraft raced down the runway, becoming airborne just past the Runway Visitor Park. Around the cabin, phones and cameras were pressed to the windows to capture the historic occasion as we soared into the gloomy skies, glimpsing the snow-covered Peak District before disappearing into the cloud base.

The flight itself was 'business as usual' for the cabin crew as they carried out the in-flight service. Around 20 minutes before our descent into Geneva, captain Collier made the standard PA, detailing the flight so far, our cruising altitude (35,000ft), outside air temperature, and our arrival time. It was only then that the crew officially mentioned the important detail: that this was the penultimate passenger flight of a British-registered Boeing 757.

Soon, we began our final approach to Geneva. The weather outside was decidedly better than the weather we had left in the UK, and as we lined up with runway 22, we saw some incredible views of the Alps and, eventually, Lake Geneva.

One hour and 36 minutes after our take off from Manchester, Alpha India's wheels kissed the runway at Geneva. Sadly, there was no fanfare or round of applause for this momentous occasion. Instead, the cabin crew made the usual after-landing PA as we made our way to a remote stand in front of Terminal 2.

As passengers disembarked, many continued to take photos while those, like me, who had not managed to visit the flight deck earlier, awaited our turn. When it was finally my turn to go up front and take the captain's seat for some photos, captain Collier was in the jumpseat, having adopted a new role as designated photographer for the enthusiastic visitors. After taking a few snaps, Collier told me that he had worked on the 757 for 19 years and that flying "a real pilot's aeroplane" had been a pleasure. He added that although he was sad to see the type leave, he was now looking forward to "going back to school" to get trained on the new A321neo fleet.

With photos taken and only too aware of the crew's tight turnaround time, plus the plane load of very excited ticket holders, including *Airliner World* editor Thomas Haynes, itching to get onboard to take her back to Manchester one final time, I made my way off the aircraft, grabbing a few more pictures as I went.

As a child of the eighties, the 757 was a constant in my life, whether it was taking my parents and I off on holiday or spotting the various liveries of its operators over the years. Hearing the roar of the RB211s as we raced off down the runway a couple of hours earlier is a moment I will always cherish.

Time to say goodbye

After 42 years, the end of passenger operations with British 757s was now in sight (Thomas Haynes writes). Those due on flight LS812 waited patiently for the aircraft to arrive at Geneva's gate D86. The sun had been threatening to show its face all morning, and as Alpha India lined up on final approach for runway 22, it finally brightened up outside, almost as though the weather understood the significance of the aircraft's arrival. Happily, as the 757 was due to park on a remote stand down at »

Low Fares
jet2.com
G-LSAI

BELOW: ***Touchdown! G-LSAI arrives into a wet Manchester*** JET2

Flight LS812 is marshalled onto stand JET2

the airport's southern end, it meant it had to taxi straight past the gate, prompting the enthusiasts' cameras into a blitz of clicking like paparazzi snapping a film star.

Boarding began shortly thereafter and after enquiring with the Swissport ground staff, I was thankfully given back my pre-booked window seat – this was not a flight I wanted to find myself relegated to the middle seat for. A remote stand would normally be an inconvenience in my eyes, but for today's flight, it was the cherry on top. We arrived at the aircraft and our bus – which had somehow been exclusively filled with the enthusiast cohort – emptied in record time as we spilled out onto the apron with cameras at the ready. Unsurprisingly, no one seemed to get on the aircraft for several minutes as we all set about capturing the aircraft from every possible angle. Passengers eventually boarded the jet, only to drop their bags and get off again. After exhausting every photo opportunity and prompted by the arrival of the second bus, we started to take our assigned seats.

It was only as I settled into seat 28F – positioned just behind Alpha India's winglet-less starboard wing – that it started to sink in that this was actually the last flight. Pushback commenced at 1430hrs local time, some three-and-a-half hours late owing to Manchester's weather; not that it mattered to most of the passengers – we were all just glad to be on board. Sadly, this take-off was derated, as per normal procedure, and with the RB211s roaring, we thundered down runway 22, lifting off into the Swiss

LEFT: ***The crew for the final flight with captains Charlie Collier (left) and David Rix in the middle*** JET2

Jet2 Boeing 757 Fleet

Reg	Type	c/n	Delivery Date	Notes
G-LSAA	Boeing 757-236	24122	04/10/2005	
G-LSAB	Boeing 757-27B	24136	30/07/2005	
G-LSAC	Boeing 757-23A	25488	14/03/2006	
G-LSAD	Boeing 757-236	24397	16/06/2006	
G-LSAE	Boeing 757-27B	24135	25/09/2006	
G-LSAF	Boeing 757-225	22689	30/10/2006	
G-LSAG	Boeing 757-21B	24014	23/11/2006	
G-LSAH	Boeing 757-21B	24015	05/02/2007	
G-LSAI	Boeing 757-21B	24016	23/11/2006	
G-LSAJ	Boeing 757-236	24793	06/05/2008	
G-LSAL	Boeing 757-204	26967	11/02/2011	Leased from Allegiant Air until October 2012
G-LSAM	Boeing 757-204	26966	12/04/2011	Leased from Allegiant Air until October 2012
G-LSAN	Boeing 757-2K2	26635	06/05/2012	
G-LSAK	Boeing 757-23N	27973	28/01/2010	
G-LSAO	Boeing 757-256	29309	16/05/2023	Acquired for parts
EC-ISY	Boeing 757-256	26241	20/05/2015	Leased from Privilege Style for 2015 summer season. Jet2 titles added to forward fuselage
G-POWH	Boeing 757-256	29308	19/03/2016	Leased from Titan Airways for 2016 and 2018 summer season. Jet2 titles added to forward fuselage

skies. A right-hand turn after take-off once we passed around 7,000ft saw the passengers on the starboard side get a glimpse of the airport before we were enveloped by the cloud base.

The short sector length meant that the in-flight service was a bit of a rush for the crew, but they did their best to get through the whole cabin. I looked out the window for most of the flight, taking in the view of the wing that one last time; absorbing the experience as much as was humanly possible. Before long, captain Rix (who was flying this sector) came over the PA to provide an update on our progress. We were now over northern France, about to coast out into the English Channel near Boulogne-sur-Mer, still at our cruising level of 38,000ft. We now only had 15 minutes left up at altitude, before a descent into Manchester would be initiated. Owing to our later departure, we were now chasing the sun as it began to set.

The seatbelt signs came on and while the crew set about preparing for arrival, I was mentally processing the fact that the flight – along with the passenger-carrying career of British 757s – was nearing its conclusion. By now, we were firmly 'in the soup' so there was nothing but grey to be seen out of the window. The light was beginning to fade as we emerged from beneath the cloud to be met by a very murky Manchester.

Touchdown! The ground spoilers rose up and reverse thrust began to roar as we rolled out on runway 05R. On our right-hand side at the perimeter fence, I could see gaggles of people braving the weather for the opportunity to witness history being made. Just like that, after 42 years of British 757 passenger operations, the last passenger flight had now been completed. A round of applause broke out through the cabin, with even the non-enthusiasts becoming drawn in to the festivities.

As we pulled onto stand, someone towards the front of the cabin called out "hip hip hooray", which got something of a lukewarm response. "Shall we do that again?" quipped another enthusiast, before a second much more forceful attempt garnered slightly more support. Outside, the rain poured down – fitting weather for such a sad occasion. The RB211s were shut down and the whine of the iconic turbofan lingered until it faded into the burble of the cabin. Passengers were invited to take the safety cards as a "memento" of the special occasion.

The aircraft emptied quickly as the non-enthusiast travellers dashed across the tarmac to the waiting buses. Once they'd gone, those who remained engaged in what I can only describe as a standoff. With the bus driver itching to depart, no one wanted to get off the aircraft because in doing so, we would seal the jet's fate. The long queue to visit the flight deck certainly didn't help matters, but people waited patiently for their turn to look at the business end. The crew were fantastically patient, and I couldn't help feeling guilty because their day – which had started in the very early hours of the morning – had been extended because of the delays at Manchester and was now being further stretched by our enthusiasm for the aircraft.

Amid a scramble by many to get the crew to sign safety cards and model aircraft, I managed to grab a few moments with captain Rix: "It's a sad occasion," he admitted. "Happy because I had the chance to fly this aeroplane which has been fantastic, but to see it go is quite emotional."

Rix has been with Jet2 since 2006 and had flown the 757 the whole time. "I've done everything I need to do on the 757," he added. "I was a line trainer, type rating examiner and I also managed the fleet – so I've done everything."

"It's been so nice to see everybody," enthused Rix. "There are so many enthusiastic people that have come to see us. We're pilots; we get to fly it every day as a job, but for everybody else to see this aeroplane, and to enjoy it, is really nice."

By now, the bus driver's patience had worn thin, so our time on board had run out. After a quick dash into the flight deck to get one last picture, I made my way to door 2L. Stepping out into the rain, I glanced back as I descended the steps – taking it in that one last time.

It is no secret that the 757 is my favourite aircraft. While it's sad that the type's passenger-carrying duties for UK airlines have come to an end, I am heartened by the fact that its flying career more generally is far from over and it'll be many, many years before we see it disappear completely. AW

LEFT: ***The flight deck of G-LSAI has been upgraded over the years with more modern equipment to ensure continued compatibility with regulations*** KEY-THOMAS HAYNES

FLYING THE GOOSE

Andreas Rohde enjoys a memorable day out with Vancouver Island-based Wilderness Seaplanes onboard its venerable Grumman G-21 Goose

WILDERNESS SEAPLANES

Once widely used along the US and Canadian Pacific Northwest (PNW) coastline, flying boats are an extremely rare species these days. In contrast to the more common floatplane, which are normal aircraft that have floats attached to their fuselage instead of a traditional landing gear, flying boats settle into the water with a boat-shaped hull. This offers the advantage of better handling in rough seas and as they are not restricted by external floats, they are almost unlimited in size, as proven by Howard Hughes' gigantic eight-engine *Spruce Goose*.

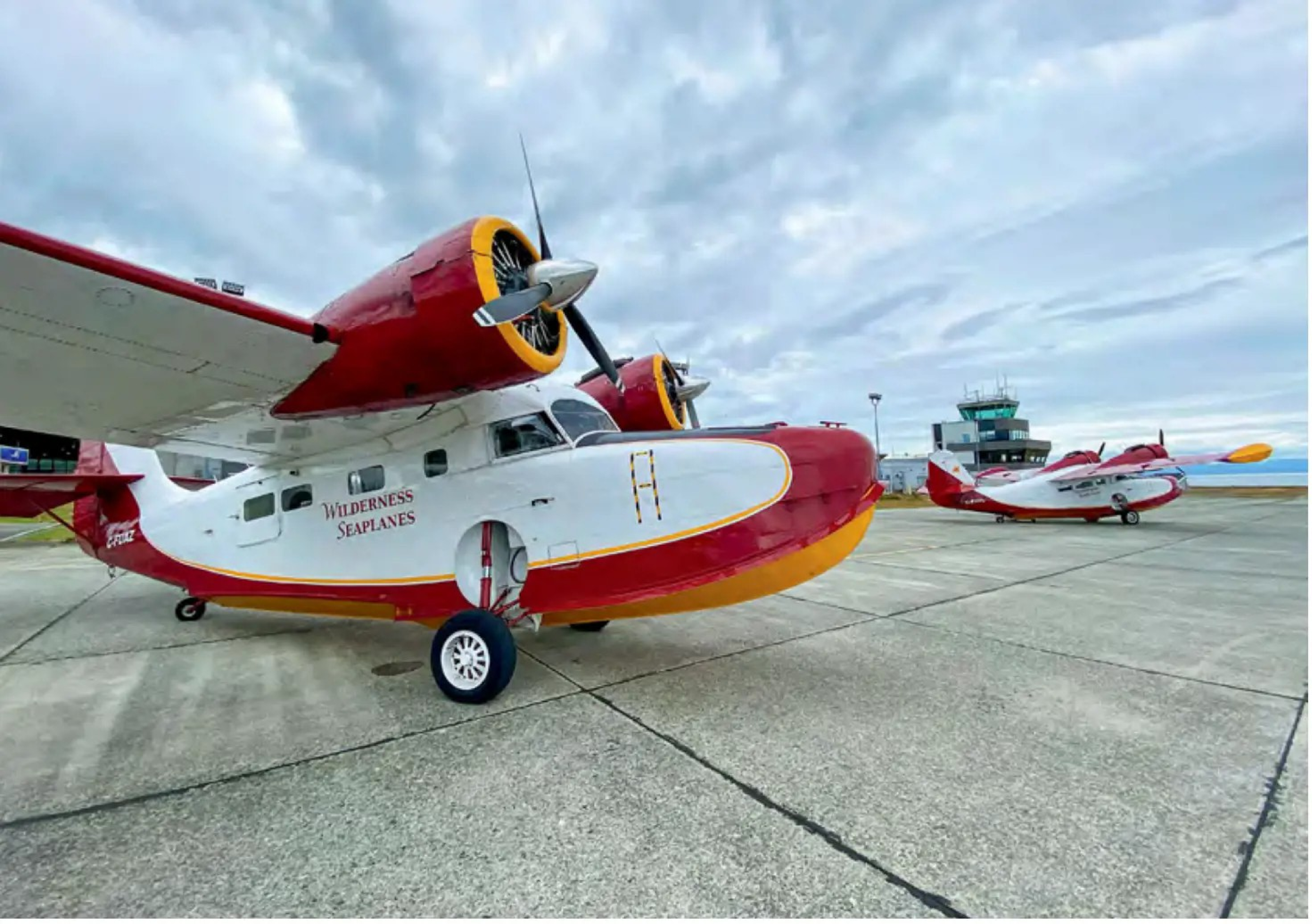
For a short time, just before the outbreak of World War Two, flying boats could fully exploit their advantages and appeared as the future of intercontinental air travel as they plied the world's most prestigious air routes. However, after the war, the availability of suitable land aerodromes and capable long-range aircraft, quickly rendered the big flying boats obsolete and almost instantly, they disappeared from the world's air routes. Yet in the PNW, an area with very limited infrastructure and demanding terrain, but unlimited water landing sites, flying boats maintained a strong foothold. However, as more and more runways were built, they became a dying breed even in the PNW. Short take-off and landing (STOL) aircraft, capable of hauling heavy loads out of confined airstrips and more powerful turbine-powered floatplanes finally made the last flying boats uneconomical to operate.

Today, the once thriving commercial flying boat operations in the PNW have all been relegated to the history books of aviation for all, except for one unique airline – Wilderness Seaplanes and its Grumman Goose operation.

Grumman G-21 Goose

Approached in 1936 by a group of wealthy businessmen from Long Island in need of a suitable transport to commute to New York, Grumman accepted the challenge and designed the G-21 Goose as a flying yacht with a luxurious interior. While the Goose was Grumman's first monoplane design, as well as its first twin-engine aeroplane, it was also its first aircraft to enter airline service, thanks to its generous interior space. Overall, 345 G-21s were built – a substantial number for its time. The Goose laid the foundation for a whole family of flying boats built by the American manufacturer, including the smaller »

BELOW: ***Wilderness Seaplanes' Goose pausing in the wilderness at Rivers Inlet/Oweekeno*** ALL IMAGES ANDREAS ROHDE



ABOVE: ***Sisterships C-FUAZ (c/n 1077) and C-FIOL (c/n B-107) – the world's entire radial engine-powered commercial flying boat fleet***

G-44 Widgeon, as well as the larger G-73 Mallard and HU-16 Albatross.

Following the outbreak of World War Two, the Goose enjoyed an extensive military career with both the US and Canadian naval air services. The example flown by the author is no exception. Wilderness Seaplanes' Goose, C-FUAZ (c/n 1077), was constructed by Grumman as a JRF-1 Goose in 1940 and started serving with the United States Coast Guard the same year.

In 1954, it left the military to pursue a civilian career, initially as a private transport. Following a complete overhaul, the venerable Goose started airline work with BC Airlines out of Vancouver in 1966, then registered as CF-UAZ.

Between 1969 and 1983 it flew as C-FUAZ for Trans-Provincial Airlines in Terrace, British Columbia. This was followed by three years with BC Airlines, after which the aircraft was acquired by Pacific Coastal Airlines in 1988.

Pacific Coastal Airlines

The second airline to carry the Pacific Coastal Airlines' name, the present company was founded in 1987 through the merger of Powell Air and the Port Hardy operation of BC Airlines, from which it inherited the latter's fleet of Goose aircraft.

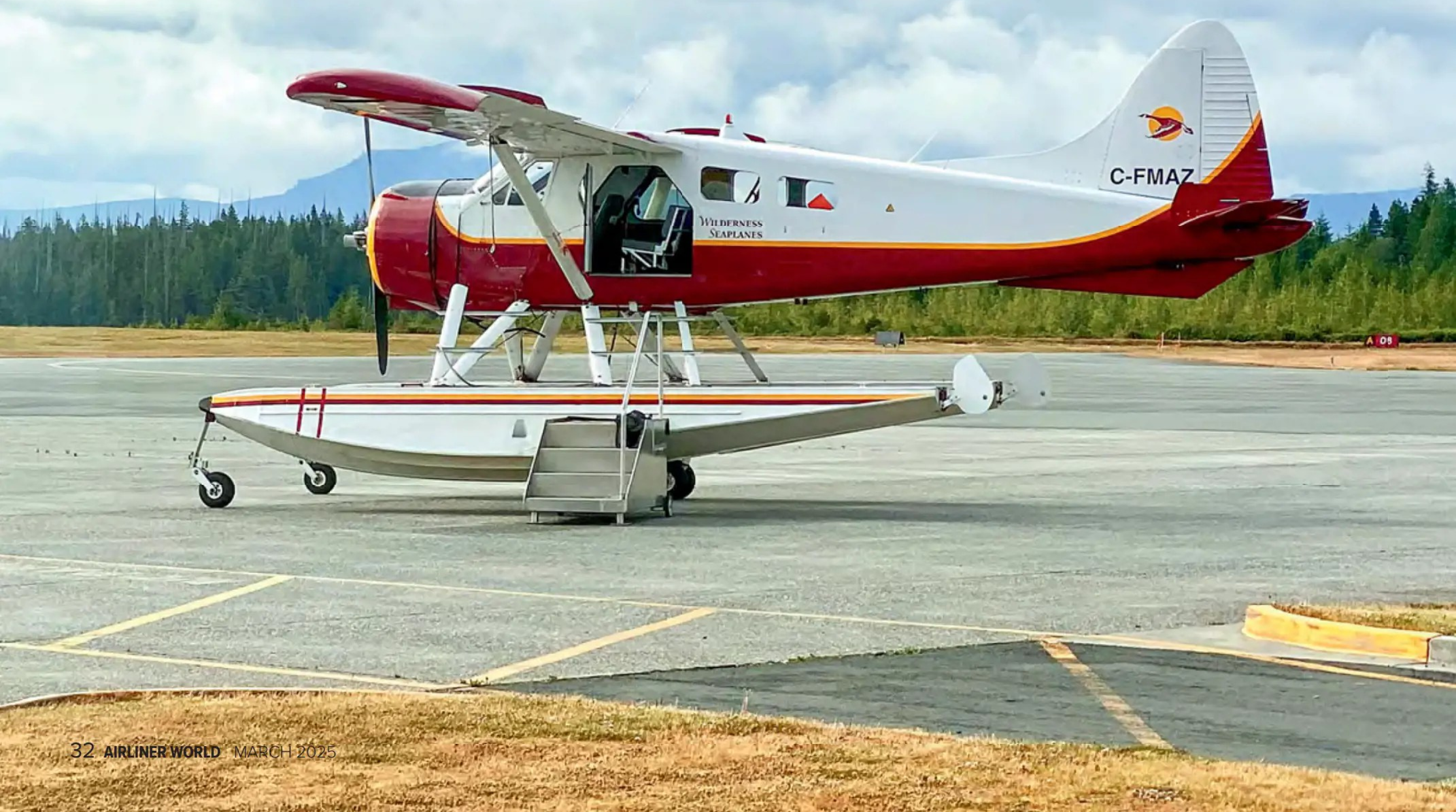
Soon after its inception, Pacific Coastal established a commuter airline operation at Vancouver with twin-engine turboprops. As the division grew, the company's focus shifted away from traditional bush flying and seaplane services, and both branches were separated with the formation of Wilderness Seaplanes in 2016.

The latter took over Pacific Coastal's amphibious de Havilland Canada DHC-2 Beavers and its fleet of Grumman G-21s, all of which were repainted in a new striking burgundy and yellow colour scheme. While its Goose aircraft operate from its main base at Port Hardy, Wilderness Seaplanes also flies some of its Beavers out of a secondary base at Bella Bella.

Goose operations

With the closure of PenAir's Goose operation in the Aleutians in 2012, Pacific Coastal, and Wilderness Seaplanes in turn, became the world's final commercial operator of radial engine-powered flying boats.

BELOW: ***C-FMAZ (c/n 1413) is one of three de Havilland Canada DHC-2 Beavers presently operated by Wilderness Seaplanes***



Pacific Coastal

ABOVE: ***Parent company Pacific Coastal Airlines flies a fleet of Beech 1900C and -D models, plus Saab 340s including C-GPCN (c/n 340B-434), seen serving Port Hardy***

RIGHT: ***Vince Crooks refuelling his Goose before departure from Port Hardy***

Unfortunately, two of its original four Goose had to be written off in accidents over the years, bringing down the world's commercial Goose fleet to only two examples, which are currently supported by three de Havilland Beavers.

From its northern Vancouver Island base at Port Hardy, the Goose are operated on passenger and freight flights, mostly to destinations along the Pacific seaboard north of Port Hardy. For individual travellers, Wilderness Seaplanes maintains scheduled services, the daily routings of which are adjusted according to the individual passengers' destinations.

Multi-stop service

On the day of our flight, the schedule originally called for stops at Wuikinuxv/Oweekeno and Finn Bay Lodge. Shortly, before departure, however, a third stop is added to deliver urgent mail to a second fishing lodge.

The flight is commanded by Wilderness Seaplanes' operations manager Vince Crooks, an experienced Canadian aviator with more than 23,000 flight hours, approximately half of which he has flown on seaplanes or flying boats. His experience includes many typical bush aircraft, such as the Noorduyn Norseman, de Havilland Canada DHC-2 Beaver, DHC-3 Otter and DHC-6 Twin Otter, but also regional airliners, including the Beechcraft 99 and 1900, Embraer 110 Bandeirante, Shorts 360 and Saab 340. With around 3,500 hours on the Goose, he is among the most experienced flying boat captains in the world.

Before taking the rare bird aloft, Vince warms up the engines in the maintenance area, then taxies it to the edge of the apron to perform the engine run-up. With both radials performing as expected, he returns to the passenger ramp, where the aircraft is then refuelled. This requires some athletic exercise, as the pilot needs to climb on top of the aircraft to replenish the left and right wing tanks. A traditional dip stick confirms that the aircraft carries the correct amount of fuel, before the passengers are invited for boarding. At the stairway, Vince holds the safety briefing and points out a few items specific to seaplane operations. The seven passengers on the first leg are assigned seats according to their weight, but everyone gets a window *and* an aisle seat. Once everyone has settled in, the big radials are fired up and without need for any further engine run-up, we taxi straight to the departure runway.

Radial power

As a multi-engine taildragger with narrow track landing gear and an amphibious aircraft with retractable gear and wing floats, plus temperature-sensitive radial engines, the Goose is quite a handful to fly.

On the runway, Vince only sets 30in of manifold pressure as an intermediate power setting until the tail comes up in order to assure directional control in case of an engine failure. Once sufficient airflow over the rudder is attained, full take-off power is set at 36.5in and 2,300rpm. At this time, the two nine-cylinder Pratt & Whitney R-985 Wasp Junior engines are generating 450hp each.

At 70kts, Vince rotates, ensuring to

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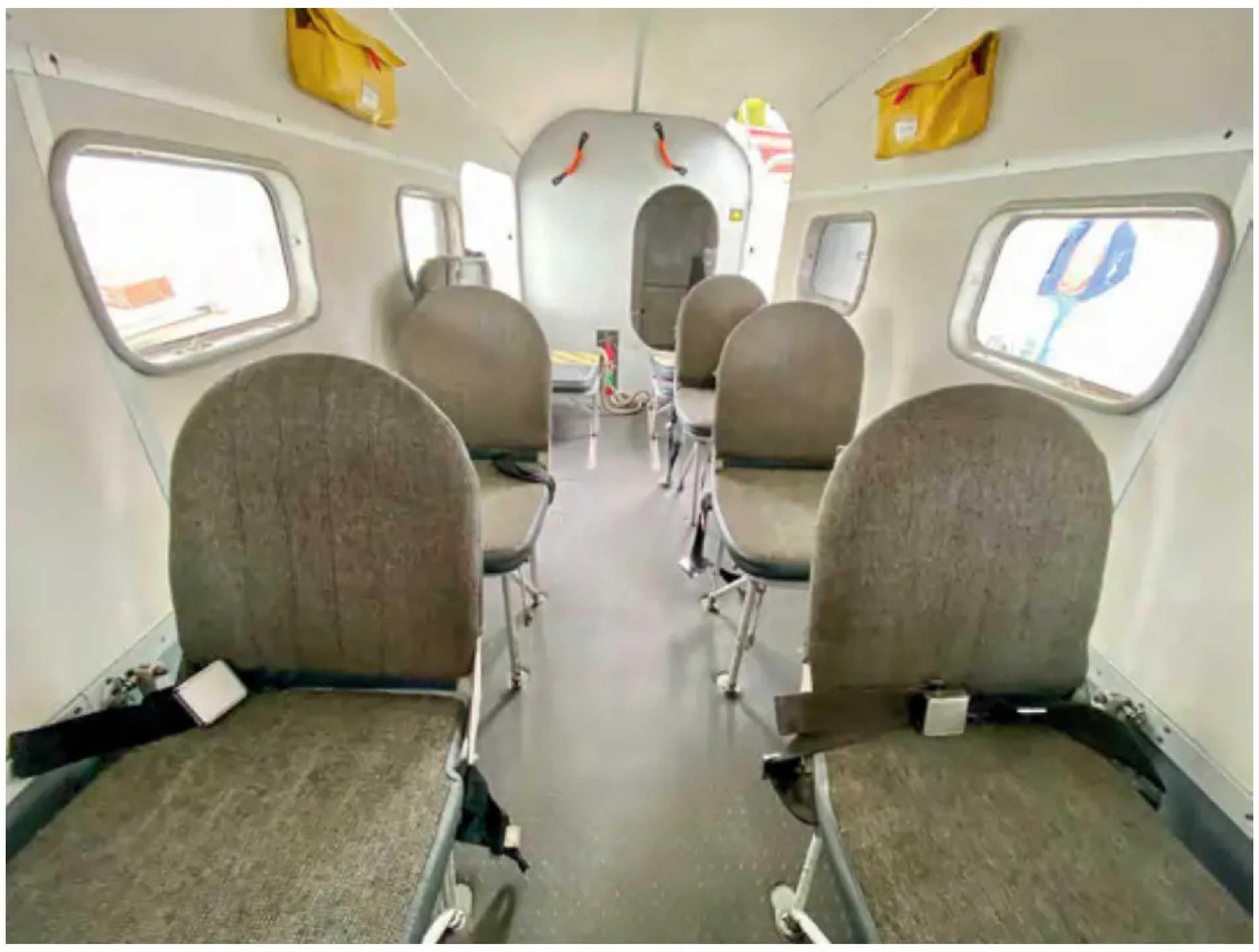
BELOW: ***The cabin of the Goose accommodates up to eight passengers, plus a ninth person on the copilot's seat***

BELOW RIGHT: ***The 'Boat Captain' at work***



be above the VMC (minimum control speed at which the aerodynamic forces are sufficient to control the aircraft in case of an engine failure in flight) of 66kts. Once safely climbing away from the runway, Vince retracts the landing gear which folds upward into the side of the hull. The gear and flaps are retracted at around 150ft, the power is initially reduced to 33.2in/2,200rpm and Vince turns the old lady northbound, followed by a further power reduction to 30in/2,000rpm for the final climb. Cruise altitude is reached no sooner than 2,500ft, where cruise power is set at 28in/1,850rpm, today resulting in a ground speed of 140kts.

Northern weather

Getting closer to the coastal mountains, the weather deteriorates considerably. While we had been departing Port Hardy under splendid sunshine, the coastal fjords and mountains are showing some typical PNW weather, with low-level clouds covering the mountain peaks and obscuring some of the valleys. Vince commented: "Up north from Vancouver Island, weather is always a challenge. As weather phenomena can dramatically change from one valley to another, the forecast is often vague and inaccurate. Therefore, webcams are a helpful tool to determine the local weather before departure. And most lodges have them today. If none are available, we give them a call by phone to check their weather."

LEFT: ***Heading further inland, the weather deteriorates considerably***

ABOVE: ***A view of 'downtown' Rivers Inlet from the air before landing***

LEFT: ***Rivers Inlet Airport has a single gravel runway measuring around 3,500ft***

We navigate deeper and deeper into a labyrinth of fjords and valleys, where the captain's local knowledge, backed up by the Goose's only modern instrument – a GPS – safely guides us along our course, even as the weather turns marginal. As we are approaching our first destination, rain sets in, reducing visibility even further. To stay underneath the cloud cover, we approach from the west, where the valley opens towards the sea. While overflying the airstrip, Vince lowers the gear – a manual task that requires 39 cranks with a hand crank located between the pilot seats. The flaps are set to the approach configuration of 30°. Rather unique to the Goose, the flaps are operated by a vacuum system, which is powered by a vacuum tank in the bow compartment.

As we pass the narrowest point of the Oweekeno valley, we execute a 180° turn over Lake Owekeeno to align the aircraft with the runway. Final flaps are set to 60°, while Vince maintains an approach speed of 85kts. As he points out, the flaps do not fully extend, as the vacuum is not strong enough to fully counter the ensuing air pressure. Thus, the flaps are blown back by the air stream to an intermediate position and only extend to the full position with further speed reduction. As the Goose's flaps in their fully extended position mainly produce drag and only a small amount of additional lift, this cleverly designed system thus automatically increases drag when it is most needed during flare and roll out. And in case of a go-around, the flaps are automatically blown back by the engine thrust to an intermediate position that reduces the

unwanted additional drag. It's a simple, but remarkably effective system for an 84-year-old aircraft.

As we come in over the threshold, the speed target is 65 to 70kts, depending on weather and aircraft weight. The Goose easily slows down on the short gravel strip and Vince taxies the aircraft onto the adjacent parking area.

Rivers Inlet Airport

The airfield at Oweekeno serves the Wuikinuxv/Oweekeno First Nation, whose approximately 300 people traditionally live around the shores of Rivers Inlet and Owekeeno Lake in the fjord area east of Queen Charlotte Sound. The airfield has a single 3,564ft gravel runway (09/27) and a small gravel covered apron, that is suitable for turning around an aircraft the size of the Goose. A wooden shack offers shelter in case of poor weather, although everyone awaiting our flight is inside their cars.

The Goose can safely operate out of airstrips as short as 3,000ft, or 2,500ft with a reduced payload. As two of the seven inbound passengers will be leaving us at Oweekeno, together with a considerable amount of cargo, the runway's short length will pose no problem for our departure.

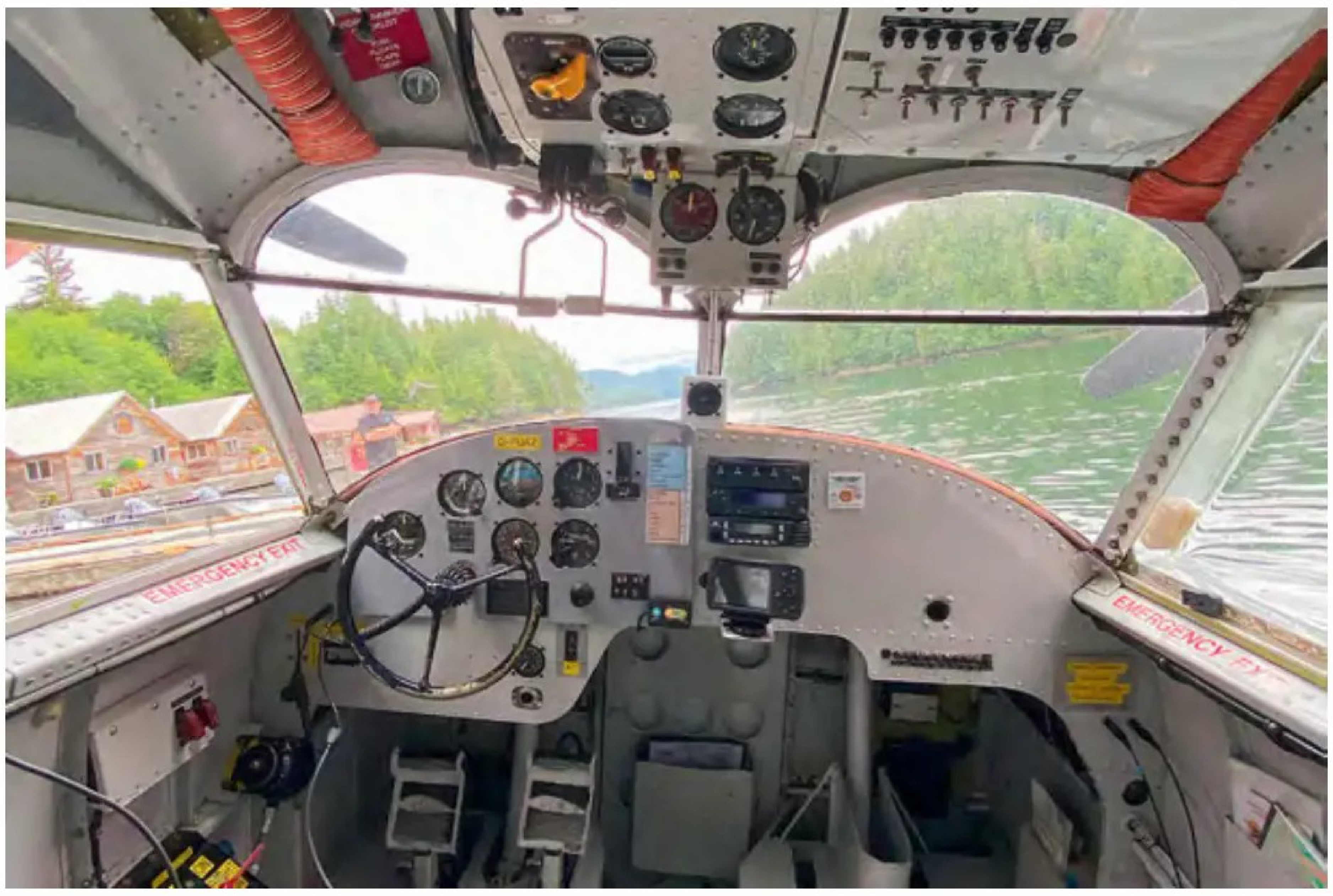
LEFT: ***The second stop at Legacy Lodge***

ABOVE: ***Arriving at the Legacy Lodge, Vince has to carefully manoeuvre the Goose close to the dock***

BELOW: ***The Goose pausing in the wilderness at Rivers Inlet***

From gravel to water

After only a few minutes on the ground, the radials are fired up again, and leaving behind a cloud of dust, we depart Oweekeno's runway 09. In contrast to lowering it, raising the gear is electrically assisted to approximately 90%, thus requiring only a few cranks to get it fully up. After reversing our course overhead the lake, we set course towards the Legacy Lodge. Once leaving the coastal mountains, the weather clears»



ABOVE: ***Splashing in at the Finn Bay Lodge***

RIGHT: ***While docked at Finn Bay Lodge, the author got a good look at the somewhat basically equipped cockpit of Goose C-FUAZ***

up as we head out towards Walbran Island. This time the landing gear stays up for landing, and instead, the wingtip floats are electrically extended. Smoothly, Vince puts the Goose onto the water in the narrow strait between Walbran and Pendleton Island, adding just a bit of power after touchdown to keep the aircraft on the step for a highspeed taxi.

Nearing the dock, he pulls back the power and raises the nose to slow the aircraft down, before extending the landing gear. Unlike float-equipped seaplanes, the Goose does not have any water rudders for directional control. Thus, the Goose is steered by applying asymmetric engine power. To prevent the aircraft from picking up unwanted speed during the docking manoeuvre, the landing gear is extended as a water brake.

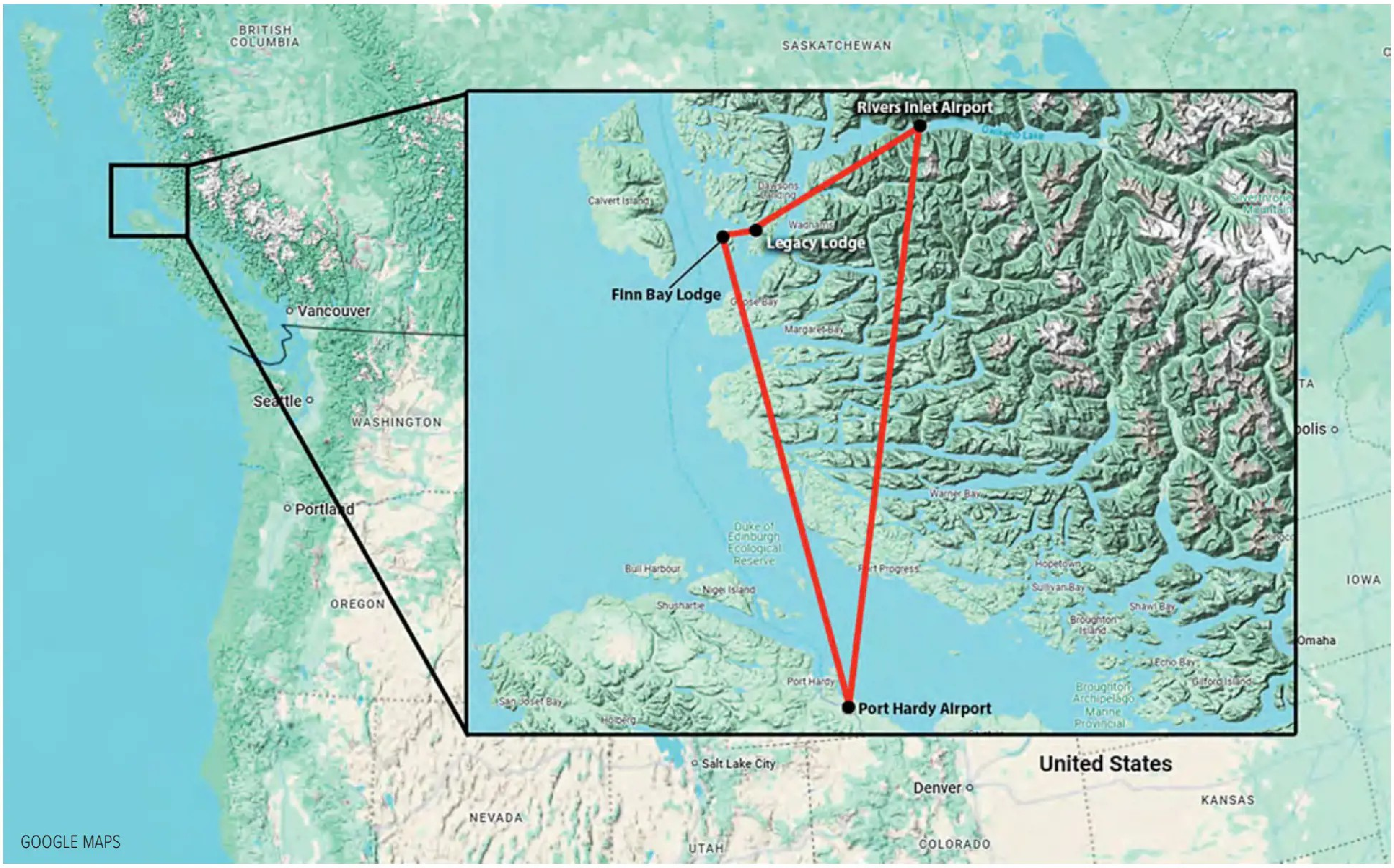
The docking manoeuvre requires the dockside float to be raised above the dock. This is achieved by retracting the opposite side float. As the float is raised upward and outward, the centre of gravity shifts outward and the aircraft tilts to this side, thereby raising the still extended dockside float high enough to pass over the dock. As this leads the aircraft to turn towards the raised float, differential power is required to offset the turning tendency.

Finally, some 18 minutes after leaving the gravel runway at Oweekeno, the Goose is safely moored to the floating dock at the Legacy Lodge, demonstrating the versatility of this aircraft that can land on practically any surface, be it asphalt, gravel, grass or water.

Lodge hopping

The stop at the Legacy Lodge is only brief. All passengers are requested to remain seated, while Vince hands out the mail. After less than two minutes, he is back on the flightdeck, restarting the two trusty 'Pratts'.

During a water take-off (with the landing gear retracted), the aircraft is accelerated to its maximum hull speed, before full take-off power is applied. Rising onto the step, take-off flaps are selected, resulting in a


BRITISH COLUMBIA
SASKATCHEWAN
Rivers Inlet Airport
Calvert Island
Dawsons Landing
Wadhams
Legacy Lodge
Finn Bay Lodge
Goose Bay
Margaret Bay
Vancouver
Seattle
WASHINGTON
Portland
OREGON
Warner Bay
Duke of Edinburgh Ecological Reserve
Bull Harbour
Nigei Island
Shushartie
Hopetown
Sullivan Bay
Shawl Bay
Broughton Island
Echo Bay
Gilford Island
Port Hardy
San Josef Bay
Holberg
Port Hardy Airport
Broughton Archipelago Marine Provincial
Salt Lake City
United States
Denver
KANSAS
IOWA
Omaha
NEVADA
UTAH
COLORADO

GOOGLE MAPS

Wilderness Seaplanes
C-FUAZ

ABOVE: ***The Goose docking at the Finn Bay Lodge***

downward pitching moment, which helps to bring the nose down. Once separated from the water surface, the floats and the flaps are raised, followed by the selection of climb power. The rest of the procedure is the same as during a runway departure. However, what needs to be kept in mind is the different engine failure procedures. Should one of the 'Pratts' quit their job after lift-off, full power is required on the remaining engine on a runway departure, followed by gear retraction in order to ensure a safe climb gradient. During water operations, the same situation would require the opposite reaction, as the aircraft would immediately be landed back on the water.

Only eight minutes after leaving the Legacy Lodge, we splash in at the Finn Bay Lodge on Penrose Island. At this stop, three passengers are leaving the flight, while three others are joining us for the flight back to Port Hardy.

The final sector back to Vancouver Island takes around 45 minutes and concludes an amazing round-trip, during which this 84-year-old flying boat has clearly demonstrated its capabilities and versatility. And foremost, it is the latter point, why Wilderness Seaplanes sticks to its trusty Grummans. While every other operator in the area has terminated the operation of flying boats or twin-radial seaplanes, Wilderness proudly relies on the Goose to take its clients to any desired destination. Vince also emphasises that without a pressurised cabin, theoretically the service life of these aircraft is not restricted, if they are properly maintained.

A ticket to time travel

Flying on Wilderness Seaplanes' Goose is like a time travel experience, allowing passengers to step back in time into an era when flying boats provided the ultimate luxury in coastal travel.

Well aware of their unique operation and its fascination for pilots and aficionados alike, Wilderness Seaplanes offers a ride along 'Cruiser Fare' (restricted to two passengers per flight) on scheduled roundtrips. Their Port Hardy base on Vancouver Island can be reached by car or by direct flights with parent company Pacific Coastal from Vancouver.

BELOW: ***Goose C-FUAZ, being serviced at Port Hardy following its return from Finn Bay Lodge***

Wilderness Seaplanes
C-FUAZ

Delivering the goods

AIRFRANCE
TOULOUSE
1st A350

ABOVE: ***A typical delivery scene... but what happens in the days before celebrations and champagne?*** AIRBUS/A DOUMENJOU/ MASTER FILMS

Thomas Haynes goes behind the scenes at the Airbus Delivery Centre in Toulouse to find out how the hand over process for an airliner works

Last year, Airbus delivered 766 commercial aircraft to 86 customers all around the world. The public normally only ever sees the end result of the hand over process; the posed photos of airline reps standing in front of their new wings followed by a ferry flight back to the carrier's home base. But what happens in the days and weeks before then?

Around a month ahead of the delivery date, the customer is notified and a team within Airbus swings into action taking care of visas, transportation, hotels and all the logistical aspects involved in getting airline representatives to the delivery centre for the hand over.

The actual process of delivery takes between four and five days to complete for a single-aisle aircraft like the A320neo and approximately seven days for a widebody such as the A350. The difference in timescale comes down to the complexity of the airframes; most notably the cabins.

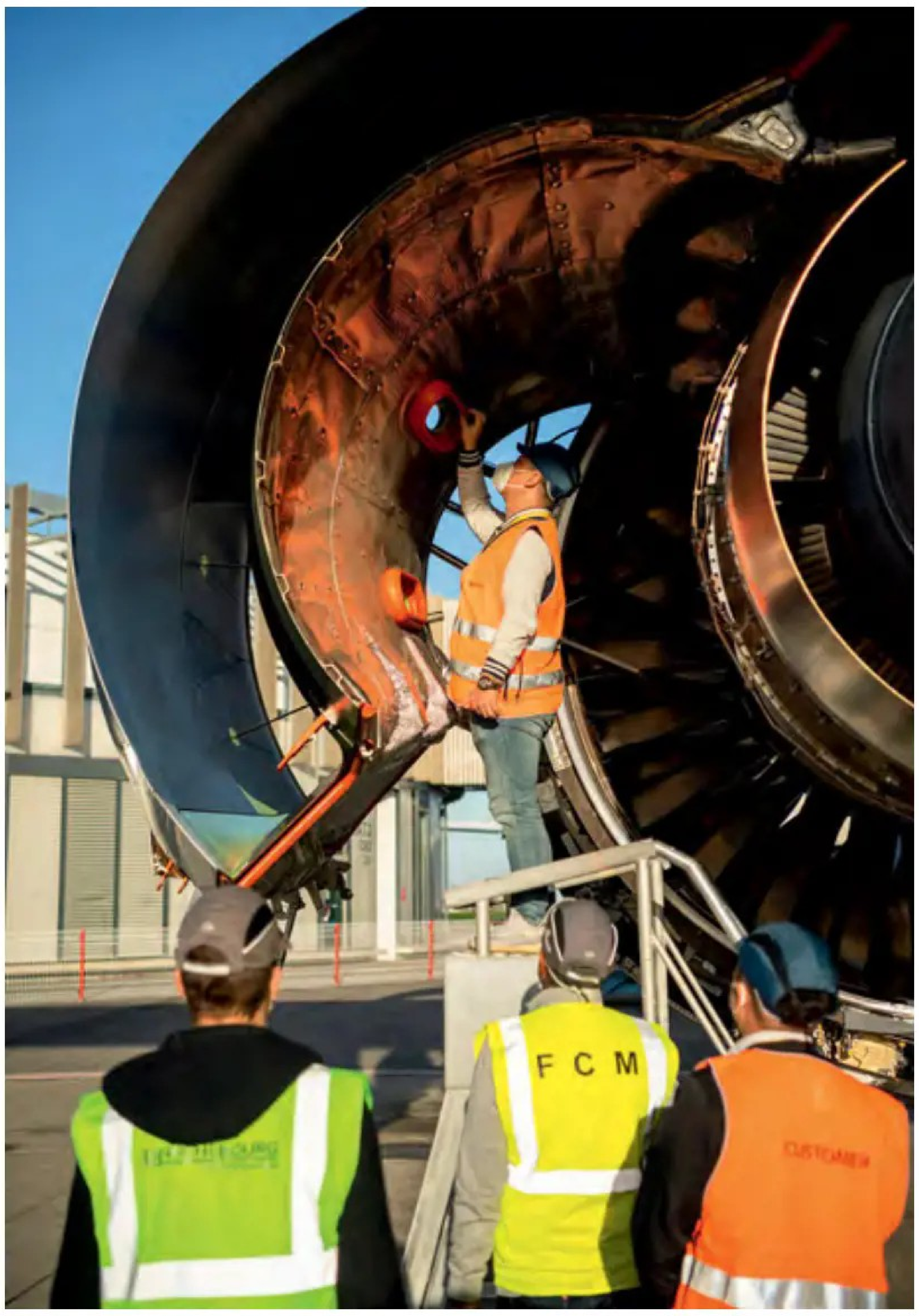
Aircraft checks

A series of ground checks kicks off the first step in the process. These are conducted with the customer and involve assessing all the external surfaces, including the paint, to ensure everything is as it should be. The cabin is also examined, along with the flight deck and its systems. A series of static engine runs are also conducted.

One of the purposes of these ground checks is to ensure that the aircraft conforms to the contractual specifications – a bit like making sure you've got the heated seats you paid for in the car you bought, the airline needs to check the aircraft meets its own criteria.

After the ground checks are complete, a customer acceptance flight is organised. This involves inspections in the air of all aircraft systems (including in the passenger cabin), and aircraft behaviour in the entire flight envelope. In the flight deck, the customer pilot will typically be seated in the left-hand seat, while the Airbus pilot will take the right-hand seat. An engineer – who is monitoring the aircraft and flight parameters – usually occupies the jump seat. In the cabin, representatives from the airline put everything to the test including IFE systems, seat mechanisms, air conditioning, lighting, and galley equipment.

AIRFRANCEKLM
GROUP



ABOVE: ***During the customer acceptance process, an inspection of every part of the aircraft is carried out*** AIRBUS/ H GOUSSE/MASTER FILMS

BELOW: ***An aerial view of the Airbus Delivery Centre at Toulouse/Blagnac in 2019 before the construction of Terminal D, which is now positioned in the middle of the car park in front of the main building*** AIRBUS/ P MASCLET/MASTER FILMS

Once the flight has been completed, there are a couple of days built into the schedule to allow for the rectification of any issues. In exceptional circumstances, a second flight may be conducted to validate any changes.

When everything is satisfactory from a technical point of view, Airbus – under the authority of the European Union Aviation Safety Agency (EASA) – will issue a Form 52, which states the aircraft is compliant with its type certification. This will then trigger the issuance of a certificate of airworthiness for the airframe – the final hurdle in the aircraft's production journey.

Delivery centres

All of this work happens at one of five Airbus Delivery Centres which are co-located with the company's final assembly lines at Toulouse/Blagnac, France; Hamburg/Finkenwerder, Germany; Tianjin/Binhai, China; Mobile/International, United States and Montréal/Mirabel, Canada.

Airliner World was granted privileged access to the company's facility in Toulouse, which in recent years has received major upgrades. Key among them is a new building called Terminal D, construction of which was completed in September 2023.

Terminal D acts as the gateway to the delivery centre and is also where the customers base themselves during the process. "The purpose of this building is firstly to bring back the customer after the COVID-19 period, to get them closer to the work," said Alexis Lafont, head of Airbus Delivery Centre. "All of our customers coming for the inspection phase and for delivery are coming through this building, in all about 3,000 people a year. The second purpose is to help with the [Airbus production] ramp up."

Lafont explained that prior to the completion of Terminal D, the Toulouse Delivery Centre only had capacity to facilitate four simultaneous handovers because it had four transfer of title (ToT) rooms. The new complex now has capacity for 12.

The building is spread across three floors, with the lowest level sporting a largely open plan layout with a social area, concierge desk and bistro. Elsewhere, there is a mini theatre space used for talks and presentations, and a gym.

The first floor has offices of Airbus' customer-facing staff who manage the delivery process, while the second floor houses the permanent customer representatives. These are people selected by some of Airbus' largest customers to station themselves at the delivery centre.

When asked for an example, Lafont said: "I can't give specific information, but it will depend on the business model of each airline. Typically, a low-cost carrier will not have someone permanently here, but you may see major airlines and lessors, because it makes sense for them to have someone permanently here."

The third level – dubbed the ToT floor – is where the transfer of title happens. This is when the transfer of ownership is formally completed with all the relevant paperwork being signed.

"This floor is where the commercial aspects of the transaction happen including payment, final calls etc,"

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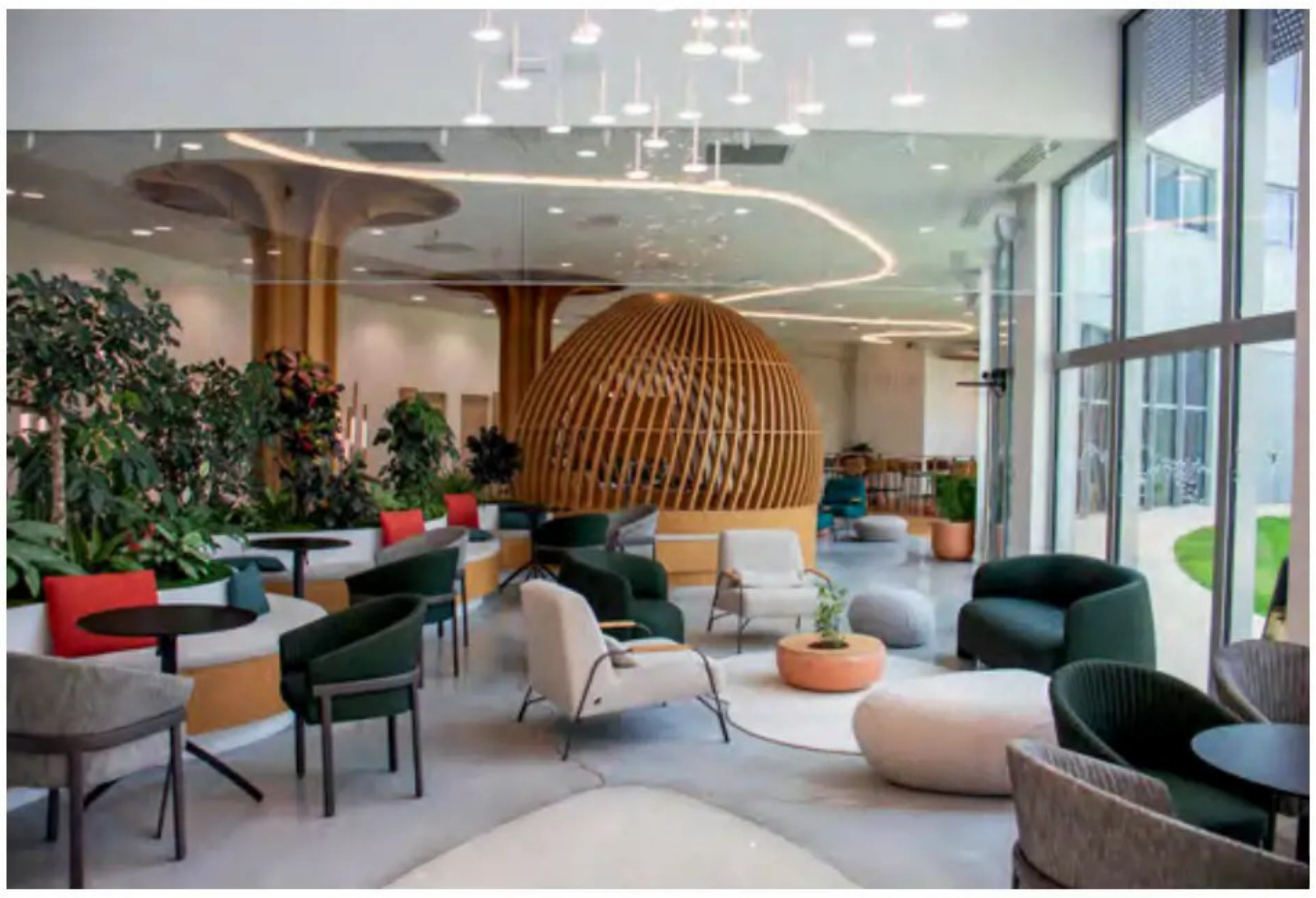


LEFT: ***The ground floor of Terminal D has an open plan layout with lots of social space***
ALL IMAGES KEY-THOMAS HAYNES UNLESS STATED

ABOVE: ***The ToT room is where the transaction actually takes place. Millions of dollars change hands before aircraft ownership is transferred to the customer***

said Lafont. "We've made a lot of investment here in confidentiality features like sound proofing. We also wanted to go back to a more formal setup because it's an important moment for everyone."

Transfer of title

Lafont explained that those involved in the ToT gather in one of the 12 rooms on the third floor around the time that the Form 52 is issued. Those present from Airbus include a Delivery Transaction Manager whose job it is to deal with the technical and commercial aspects of the aircraft delivery, including negotiating commercial resolutions with customers relating to technical and minor cosmetic aspects. Also in the room is the manufacturer's Sales Contracts Manager who is the main customer contact for the management of all contractual matters relating to the purchase – including the aircraft's transfer of title.

"We will do a closing call which involves checking with the financial organisations that all their prerequisites are fulfilled, so usually they're asking us questions about the status of the aircraft," explained Lafont. "Once they're happy they can release the funds and launch the payment. This is the moment where we pause because the money is somewhere; not in our accounts and not in the customer's accounts anymore."

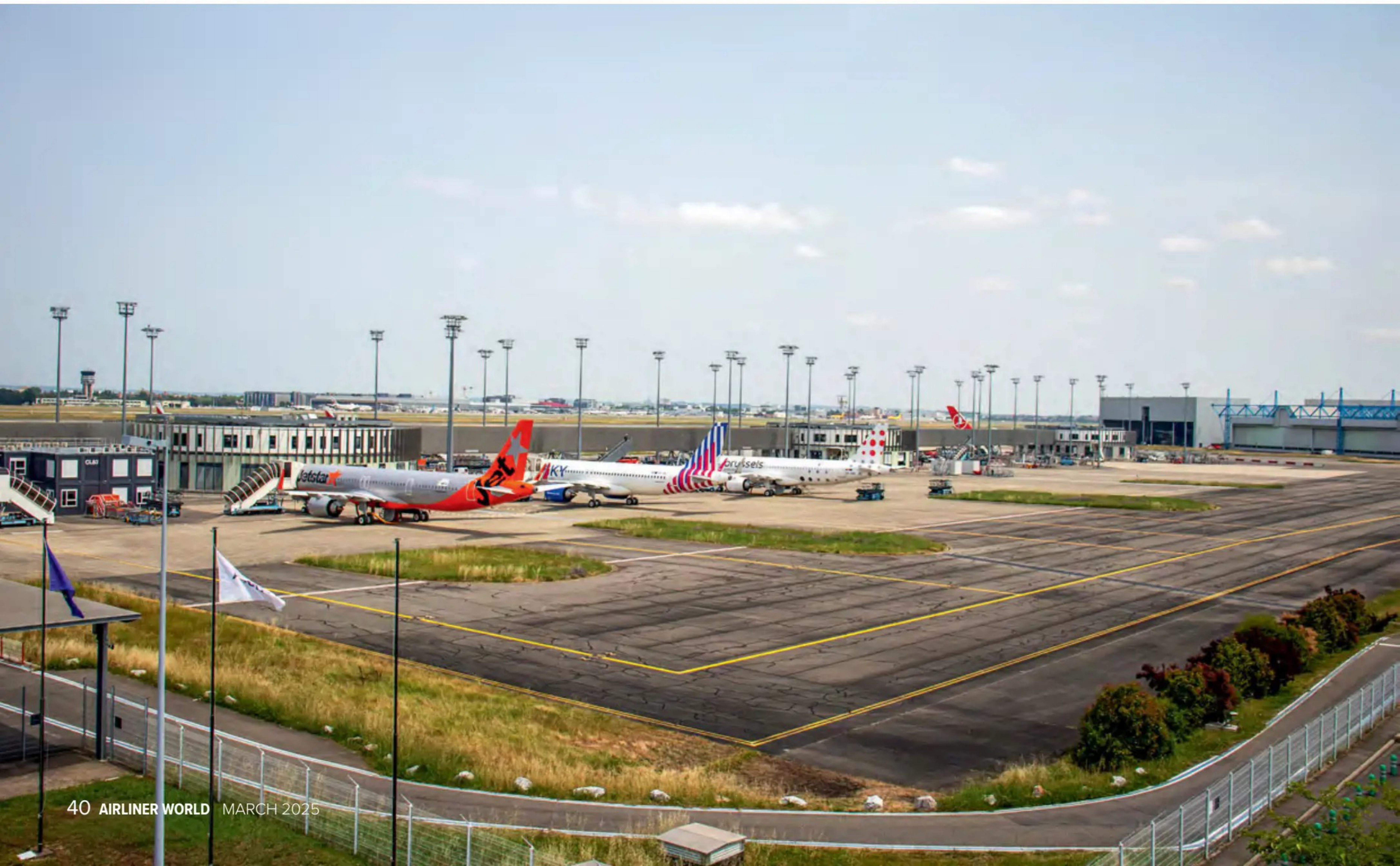
He explained that it can sometimes take a bit of time for the funds to arrive because of compliance checks: "It's a lot of money," he remarked. "Banking systems are made to check that everything is properly done.

"Once payment is received, we sign the bill of sale and the aircraft becomes theirs. After that, we have a glass of champagne."

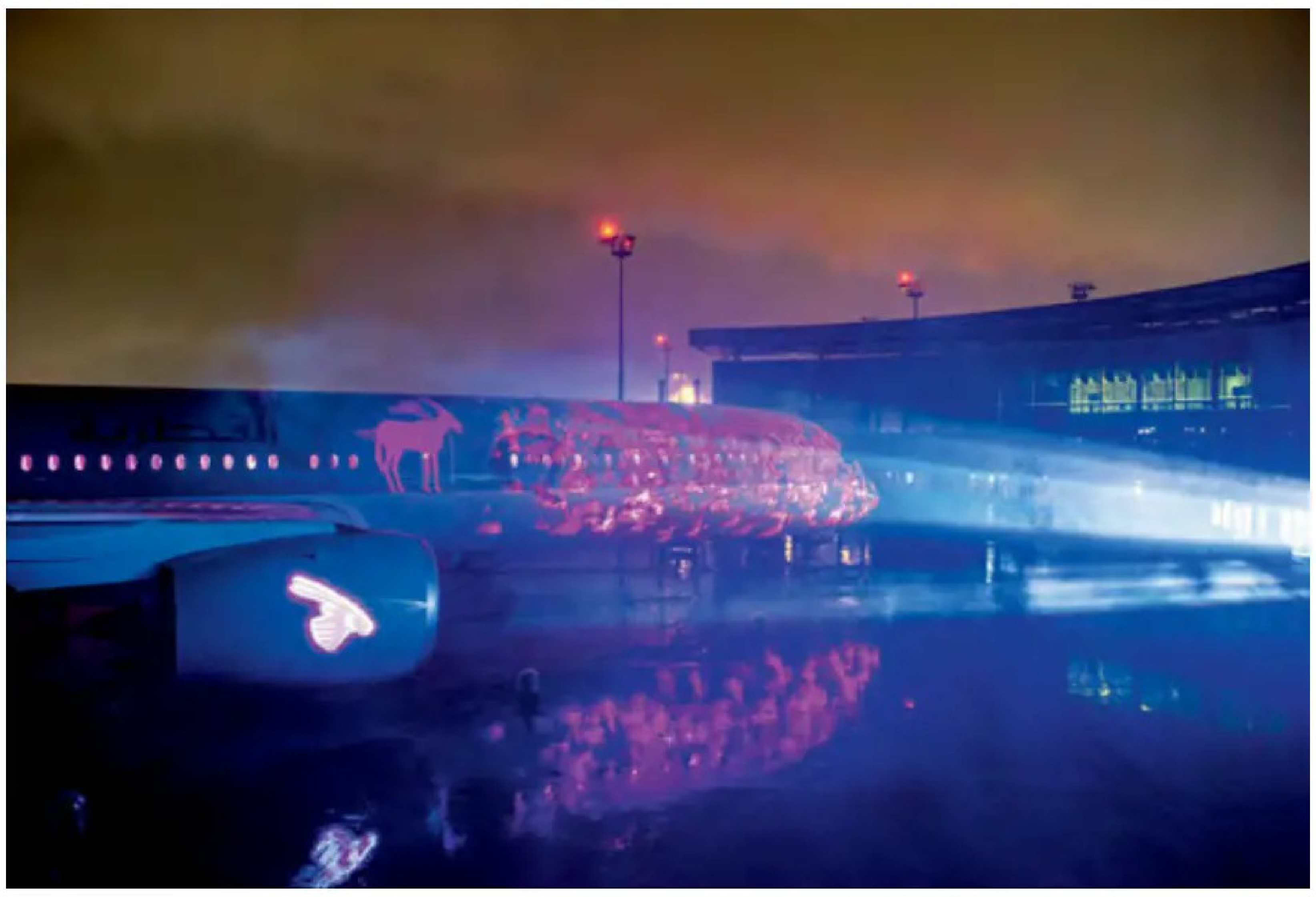
Flying home

After all the paperwork has been completed, everyone heads over to the main part of the delivery centre which resembles an airport terminal building. Featuring a central square-shaped structure that has an inward curving edge, two arms extend outwards with four accompanying circular satellites. Construction of a fifth satellite building is ongoing, while a sixth unconnected parking area is present at the northern end, meaning there will soon be space for up to 24 aircraft at the delivery centre. Typically, four airframes can be parked around each satellite and the maintenance and engineering staff, as well as the pilots are based here when carrying out the aircraft checks and acceptance flights.

Based on the customer's requirements, as little or as much fanfare can be made about the aircraft's delivery. If some pomp is



BELOW: ***A view of the satellites from the terrace atop Terminal D***



required – perhaps because it is the first or last delivery – the jet can be positioned at the semicircle stand which provides a raised view through the expansive first-floor glass wall or alternatively, the balcony offers an open-air vantage point. There is also a stage and seating nearby which can be used for a press conference or celebration event. Meanwhile, those travelling on the ferry flight use the ground floor check-in desks and bag drops in exactly the same way a passenger for a normal flight would.

Once the last photos have been taken, and passengers, fuel and catering have been loaded, the aircraft can depart for its destination. In doing so, the hugely complex and expensive task of building and delivering an airliner has been completed. AW

ABOVE: *The windows on the top floor of the main building at the Delivery Centre provide the customer an expansive view of their new aircraft* AIRBUS/F LANCELOT/ MASTER FILMS

TOP RIGHT: *The delivery ceremony can be as lavish or not as the customer wants. In this instance, a special projection is put on Qatar Airways' first A350-1000* AIRBUS/H GOUSSE/MASTER FILMS

RIGHT: *The check-in desks for ferry flight passengers at the Delivery Centre*

A final wave goodbye as the delivery of a China Southern Airlines A321neo reaches its conclusion AIRBUS

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Acceptance & Delivery

STARWAYS

LIVERPOOL'S BOUTIQUE AIRLINE

Bob O'Brien investigates the airline created for showbiz passengers which made its mark in the post-war era on Merseyside and beyond

Starways was formed towards the end of 1948 after two friends, both airline captains, Noel Rodnight and Albert Dean put together a business plan aimed at carrying celebrities to and from the post-war showbusiness capital of the north of England – Blackpool. The company was registered as an airline on December 7, with an initial starting capital of £2,000. Rodnight became the chief pilot, leaving Dean to manage the commercial affairs.

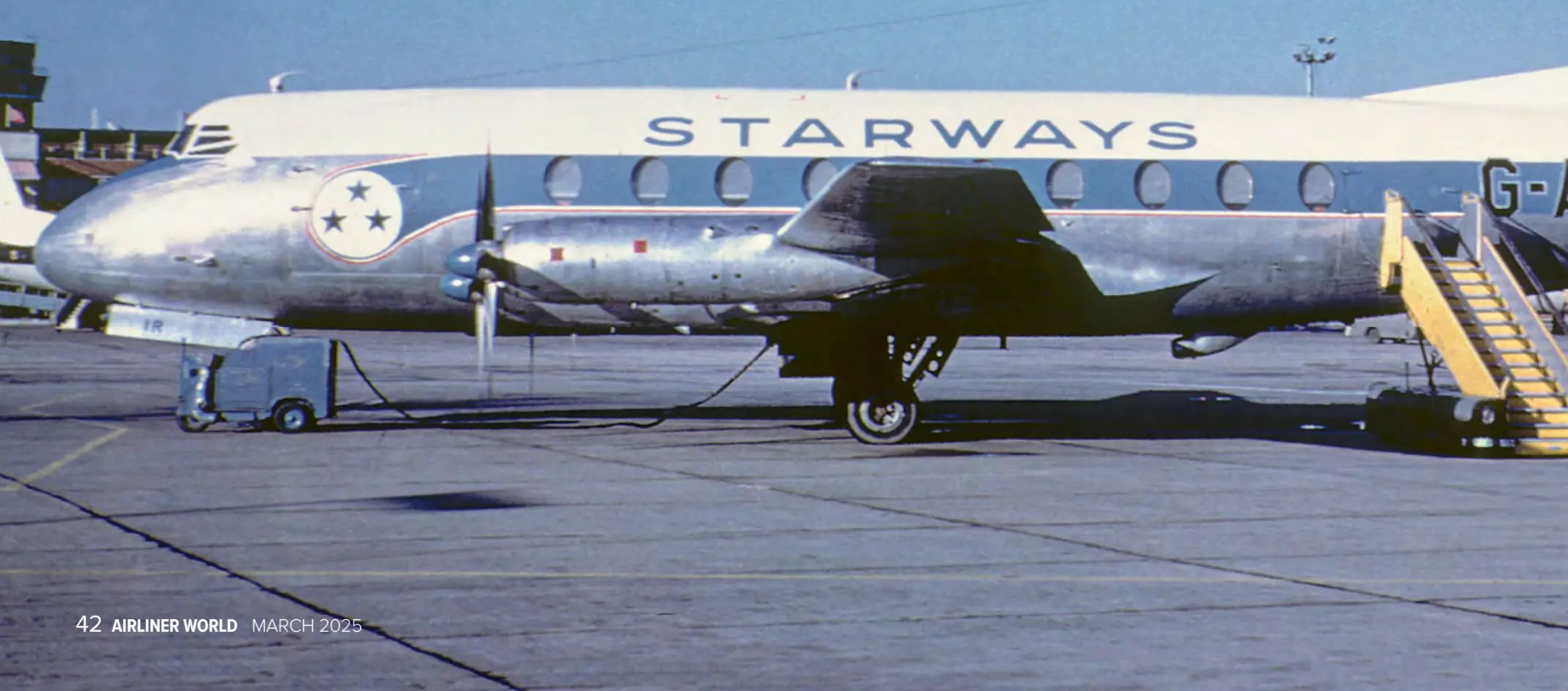
Operations commenced from Blackpool's Squires Gate airport in January 1949 with a single Percival Q.6 Petrel, G-AFIX (c/n Q31). The airline had only had the aircraft on its books for a short time before it was written off in an accident at Broom Hall, Pwllheli the following May, though fortunately all four passengers survived. Undeterred, the two friends quickly acquired Avro Anson G-AIRN (c/n NK667) *Stardust*, and the larger aircraft allowed the airline to spread its wings and operate all over the country. Squires Gate was deemed unsuitable for further expansion and the decision was made to move to Speke Airport in Liverpool.

The move to Merseyside also meant changes at managerial level. Mr F H Wilson and his brother owned the Liverpool-based Famous Army Stores, wall finishing company Limocoat, and the Cathedral Touring Agency, and they provided the airline with much of its early charter business. The brothers joined the board of directors together with Mr R V Baker who became operations and commercial manager. The start of 1950 saw Starways undertake a variety of ad hoc work from Speke with the Avro Anson. Some of this work included newspaper and freight charters, press work and army co-operation flights. Rather than rest on their laurels, further subsidiary bases were opened at Walney Island near Barrow, on the Cumbrian coast, and at London's Northolt Aerodrome.

Fleet expansion

To coincide with the airline's expansion, two further Ansons were acquired in March 1950, G-AHII (c/n 1324), *Starlight* and G-AHIK (c/n 1326), *Starflight*. The first Douglas DC-3, G-AJDG (c/n 2199), joined the airline in October, providing

"The first Douglas DC-3 'Dakota' G-AJDG joined the airline in October 1950, providing a huge boost in capacity"



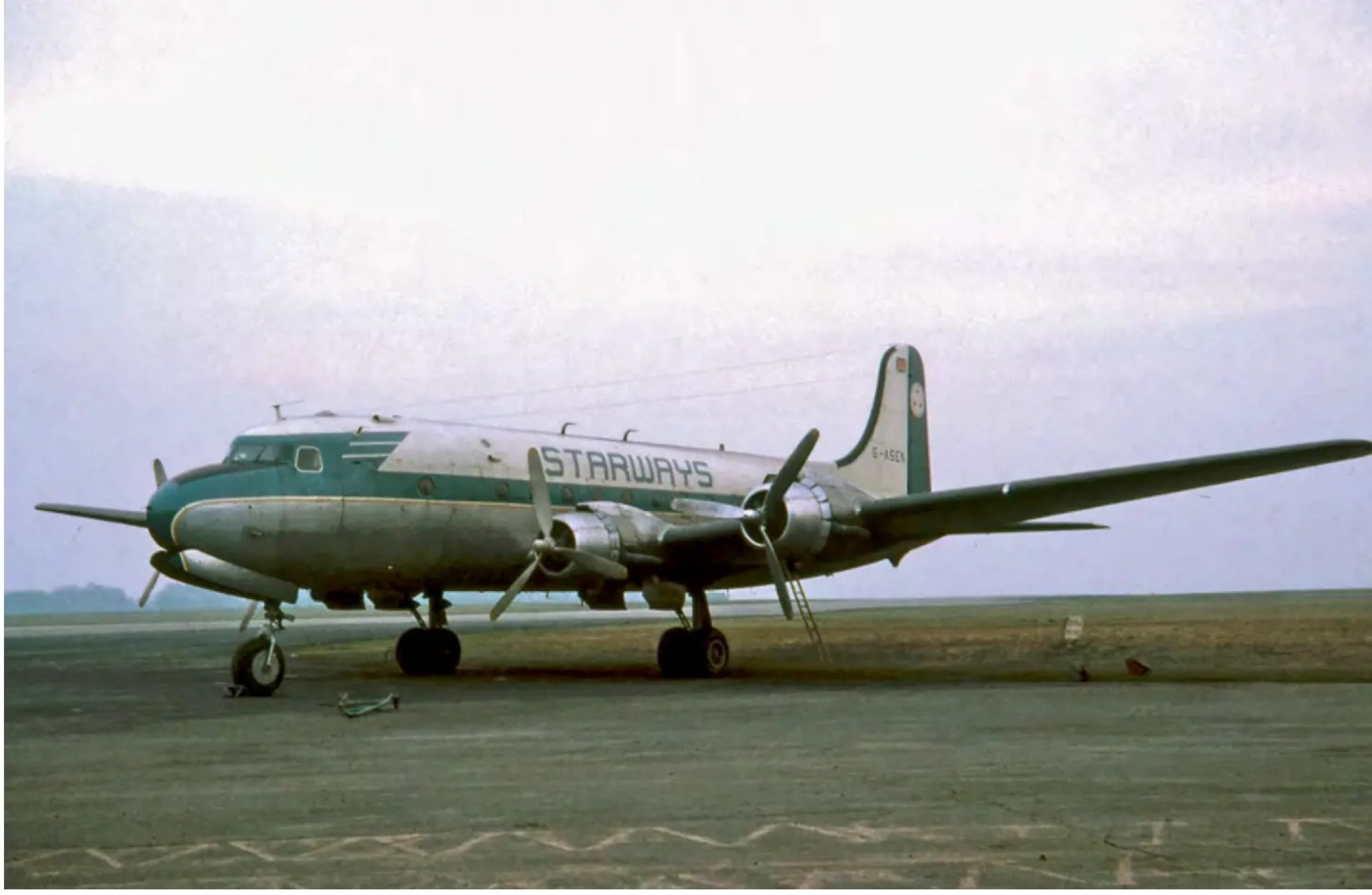
BELOW: ***Vickers Viscount 708, G-ARIR, arrived from Air France in February 1961***
ALL IMAGES BOB O'BRIEN

a huge boost in capacity. It was initially placed into service with a series of freight charters between Bovingdon and Belfast, earning the company some much needed revenue. One of the first ad hoc charters for the Dakota was a passenger flight to Karachi, Pakistan later that October. On the return sector, it positioned to Istanbul where a ship's crew enjoyed a leisurely flight back to the UK to join a vessel in the River Mersey. Another charter came the airline's way just before Christmas when the aircraft positioned to Amsterdam to collect another crew and deliver them once again to their waiting ship in the Mersey. These charter revenues were welcome gifts for all concerned as 1950 came to an end. It had been a year of progress in which the airline flew more than 200,000 accident-free miles and employed five full-time pilots.

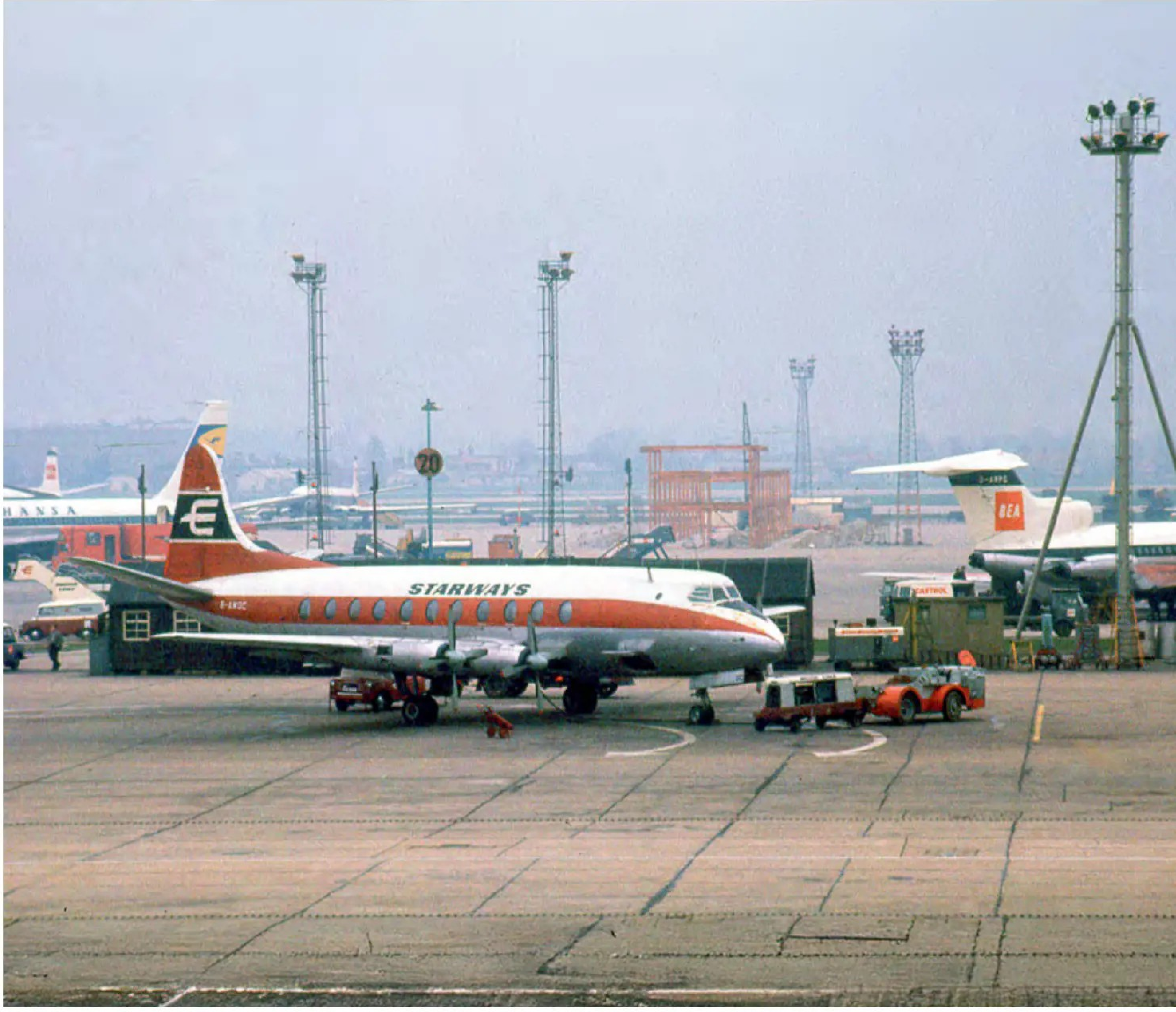
The following year saw more changes for the fledgling airline when F H Wilson was appointed Starways' chairman, a position he was to keep until 1963. Further expansion came in 1952 when the airline purchased five more DC-3s from the RAF: G-AMPO (c/n 33186), G-AMPY (c/n 26569), G-AMPZ (c/n 32872), G-AMRA (c/n 26735) and G-AMRB (c/n 16670). However, only three of these aircraft would enter service after an overhaul by the maintenance team at Speke. In 1953, the carrier was granted its first scheduled service between Liverpool and the Isle of Man. Shortly after that an application was granted allowing DC-3 flights to begin between Liverpool and Bilbao in Spain, and Lourdes in France. Over 6,000 passengers and 300 tons of freight had been carried by the end of 1953.

The Wilson brothers took complete control of the business in early 1954, giving further stability to the thriving airline. In June that year, a new application was granted for a service between Glasgow and Lourdes with a stop in Bournemouth or Jersey to pick up more passengers. In 1955, Starways was granted a licence to operate between Liverpool and London. It was unusual for such a small operator to be granted access to the capital, but with the Wilson family in control, anything was possible, and Liverpool seemingly had access to the world. The route operated several times a week and passenger numbers quickly increased to make it profitable – even with a DC-3 making its leisurely way up and down the airways.

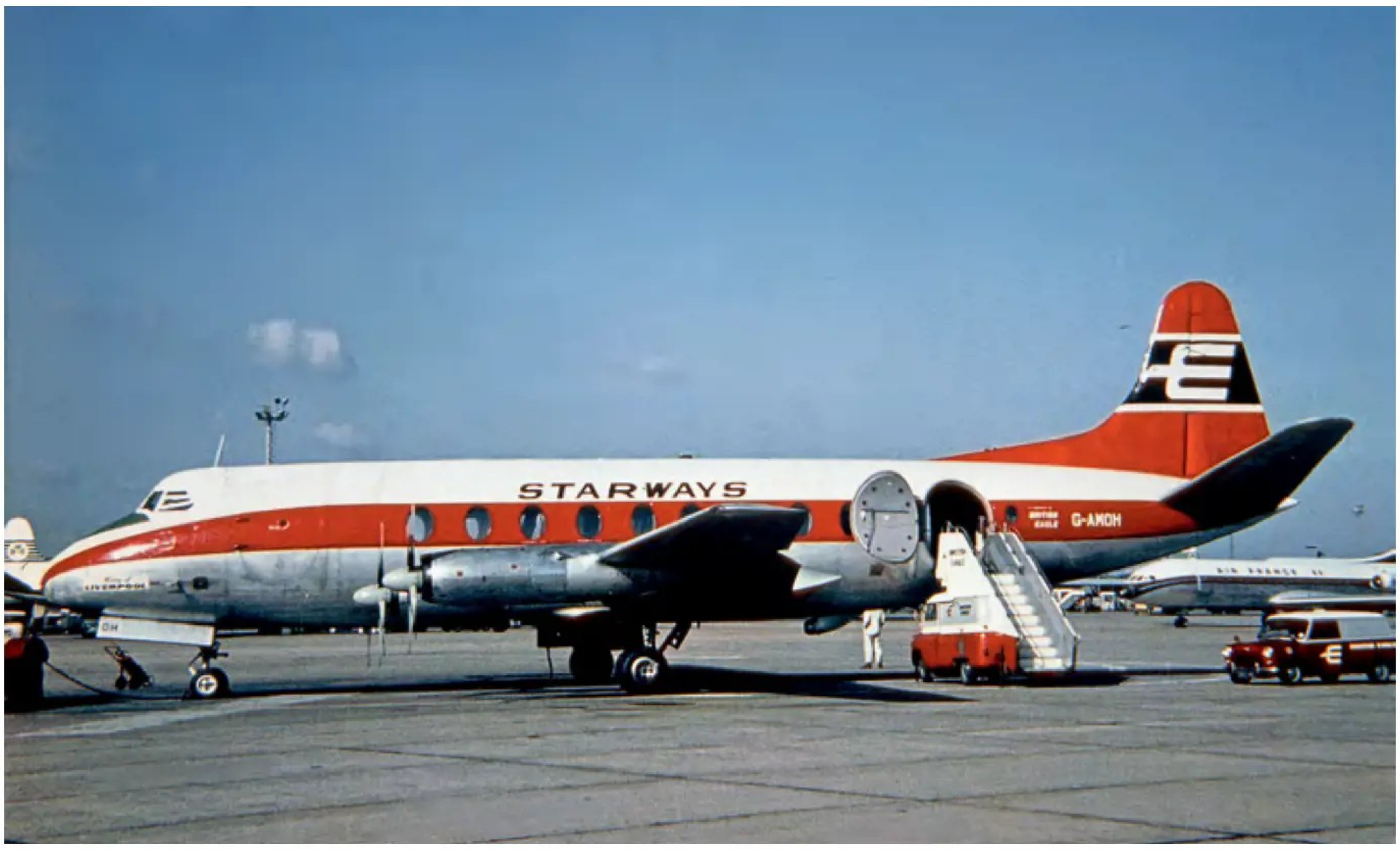
During late 1956 and early 1957, the airline took a secondary role in the Hungarian airlift as the DC-3s



ABOVE: ***Douglas DC-4 Skymaster, G-ASEN (c/n 10412), joined the fleet in January 1961 and was sold on to Icelandair in May 1964***



BELOW: ***Viscount 701, G-AMOC (c/n 13) at Heathrow in the mixed livery of British Eagle and Starways***



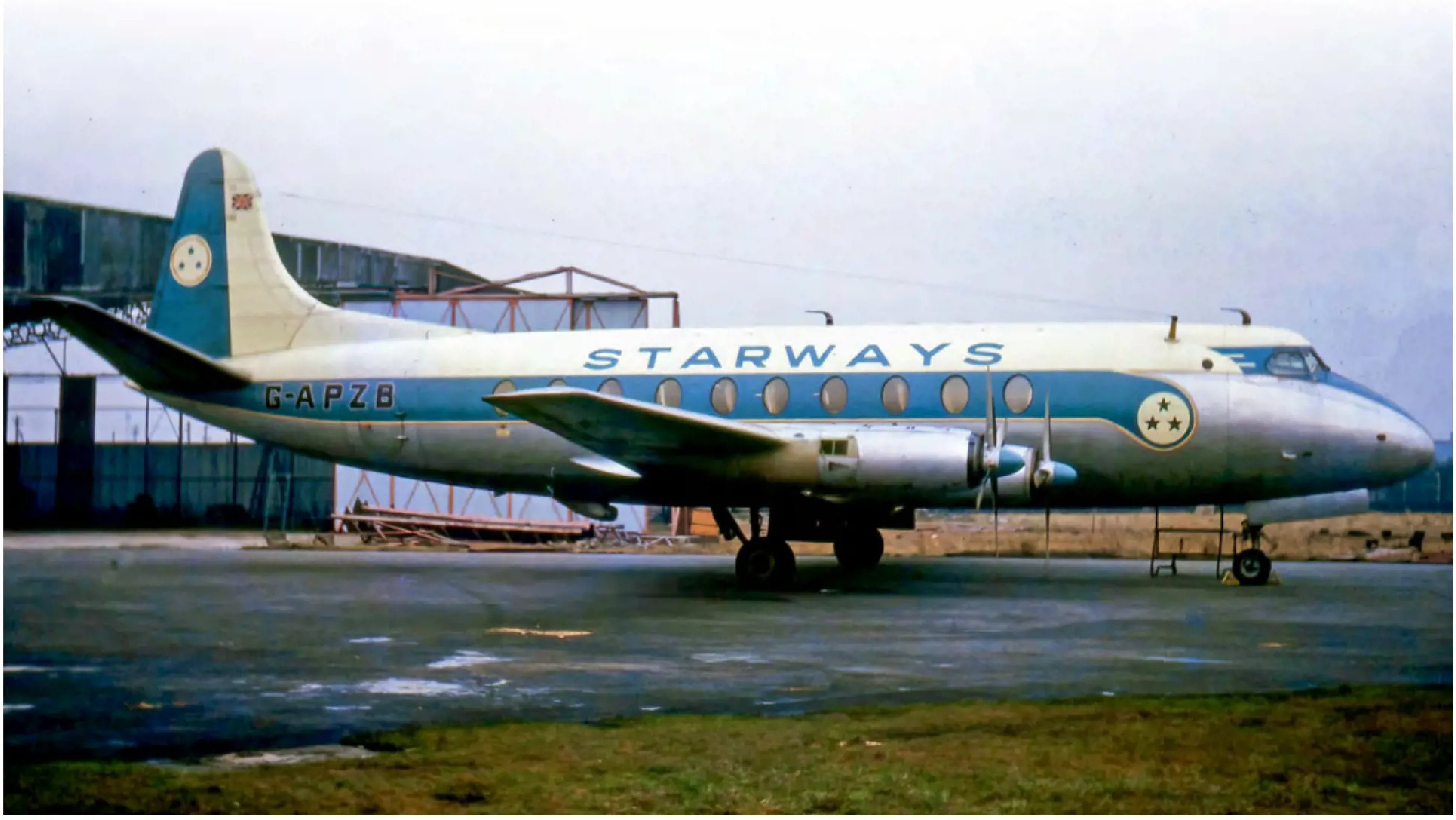
were kept busy transporting refugees between Vienna and Blackbushe, on the outskirts of London. It operated a total of nine round trips ferrying almost 300 Hungarian refugees to a new life in Britain.

The Skymaster arrives

The airline invested in new long-range equipment during 1957 when the first Douglas DC-4 Skymaster joined the fleet. Purchased from Great Lakes Airlines in the US, it made the Atlantic crossing from Gander, Newfoundland, direct to Liverpool on September 27. After a major overhaul, a new certificate of airworthiness was issued, and it was registered as G-APEZ (c/n 42921). Following crew training at Blackpool and Speke, its first task in conjunction with DC-3 G-AMPO, was to transport a party of Liverpool football supporters to Southampton for a match on January 8, 1958, which Liverpool lost. With a cruising speed 40kts faster than the DC-3, and capacity for up to 73 passengers, the aircraft was a perfect fit for further

ABOVE: ***Viscount 701, G-AMOH (c/n 21) was operated for British Eagle from February to May 1964***

BELOW: ***Viscount 707, G-APZB (c/n 30) arrived at the airline in November 1962 and had Captain Tickle at the controls when it operated the final Starways flight on December 31, 1963***



expansion plans which would see the Starways name landing at airfields in the Far East and Africa.

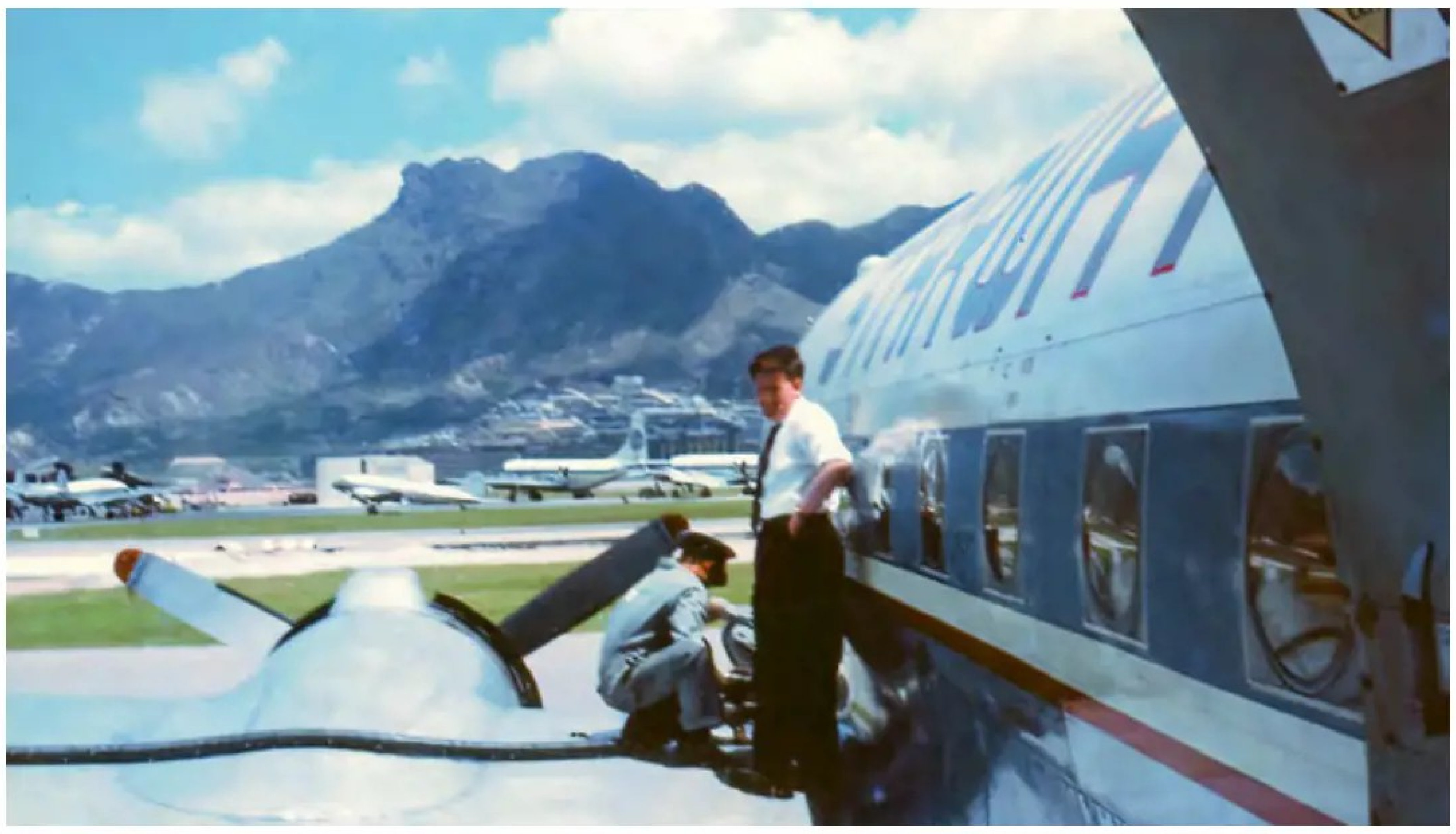
A second DC-4, G-APIN (c/n 10736), was purchased from California-based Resort Airlines, arriving in Liverpool on February 5, 1958. In all, seven joined the fleet: G-APEZ, G-APYK (c/n 10279), G-ARIY (c/n 3116), G-ARJY (c/n 10288), G-ASEN (c/n 10412), G-APIN and G-APID (c/n 10408), leased from Trans World Leasing. Some would serve longer than others and two were written off in accidents.

G-APIN was destroyed in 1961 while on the ground in the DR Congo and leased to Sabena, the Belgian flag carrier. Starways had a 12-month contract to fly for the United Nations, which included providing the flight crew and ground maintenance, and the aircraft was painted with UN titles at Liverpool before leaving for Africa. On September 16, after landing at Kamina, a UN forward operation base, flight engineers Malcolm Ebbitt and Colin Taberner disembarked. The flight crew, consisting of captain Bryan Monkton and first officer Carl Llgis, were still on board shortly after when a Fouga Magister jet from the Congolese breakaway state of Katanga arrived above the airfield. Seeing the Skymaster on the ground, the mercenary pilot embarked on a low run over the airfield, spraying the ground with bullets. During the second run a rocket was fired at the Skymaster, which hit, caused an explosion, and set the aircraft on fire. Both pilots were badly injured, but Monkton managed to carry Llgis to the open doorway, where he dropped him 15ft to the ground and broke his ankle, but at least the two crew members survived. Shortly after the incident, Starways terminated the UN contract, and the remains of the aircraft were left to rot in the jungle. »

ABOVE: ***Douglas DC-3, G-AMSN (c/n 16631) flew on December 31, 1963, Starways' final day of operations. It is preserved at the Dead Man's Corner Museum in Normandy***

BELOW: ***DC-4, G-ARJY (c/n 10288), before it was painted in Starways' livery, crash landed at Dublin in 1961. Some said it was the holy water carried by pilgrim passengers that kept everyone onboard alive***

> **"Seeing the Skymaster on the ground, the mercenary pilot embarked on a low run over the airfield, spraying the ground with bullets"**



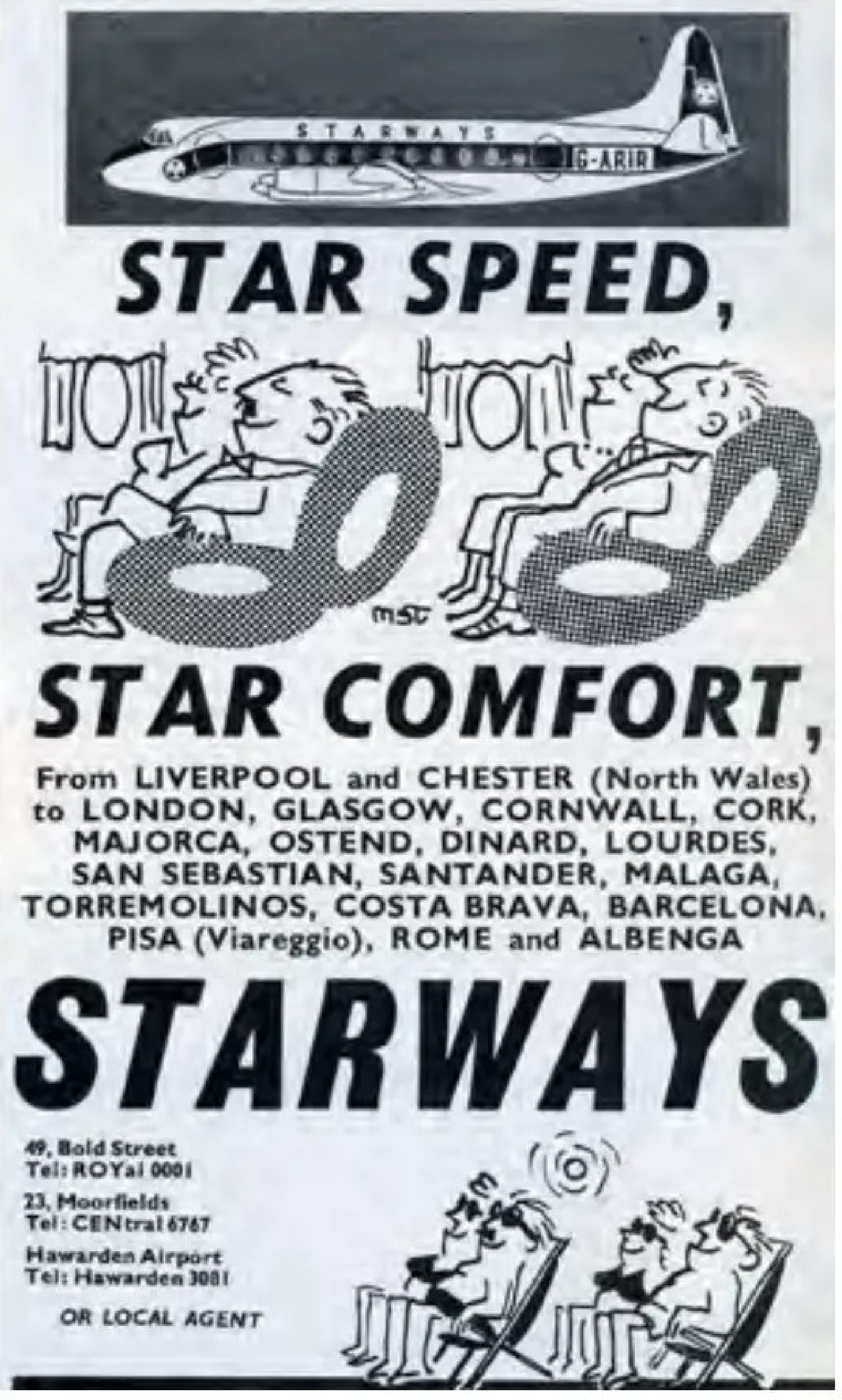
LEFT: *Engineer Bernie Mackenzie on the wing of a DC-4 at Hong Kong/Kai Tak, worked as a 'flying spanner' on the DC-4s from 1956 to late 1963 on services to Hong Kong, South Africa, Australia, Lebanon and the DR Congo among others*

LEFT: *Flight crew and cabin crew enjoy some downtime and exemplify the comradery at the airline*

The second accident occurred at Dublin Airport three days later, on September 19, 1961, when Skymaster G-ARJY was inbound from Lourdes in France with 69 pilgrims aboard. The aircraft overshot the runway and made a wheels-up landing in a field, coming to a stop as it straddled the Dublin to Belfast road, about half a mile beyond the airport. The cabin crew, Fay Arista and Barbara Wilkinson, calmly opened the main door and evacuated the passengers onto the road. A passing bus transported the lucky passengers to the terminal building. Pathé News were soon on the scene to film the stricken aircraft, and it is alleged the Starways name was painted over within 30 minutes of the accident. Engineer Bernie Mackenzie was dispatched from Liverpool to take control of the salvage work. However, the aircraft was deemed beyond economic repair, broken up and transported back to Liverpool by sea, where it was parted out for any useful spares. The accident investigation later attributed the cause as an error in fuel management by the flight crew resulting in a loss of power and control.

Despite the setbacks, the Skymaster fleet were kept busy on scheduled and inclusive tour work. Captain George Leigh was elevated to the role of chief pilot, but the board of directors was still controlled by the Wilson family. A story recalled by Leigh's wife Patsy, the chief stewardess, recounted an interesting working week in a Skymaster. Like many carriers of the era, once you

RIGHT: *1960s Starways marketing – Albenga is on the Ligurian coast, halfway between Genoa and the French border*



STARWAYS
G-ARIR
STAR SPEED,
STAR COMFORT,

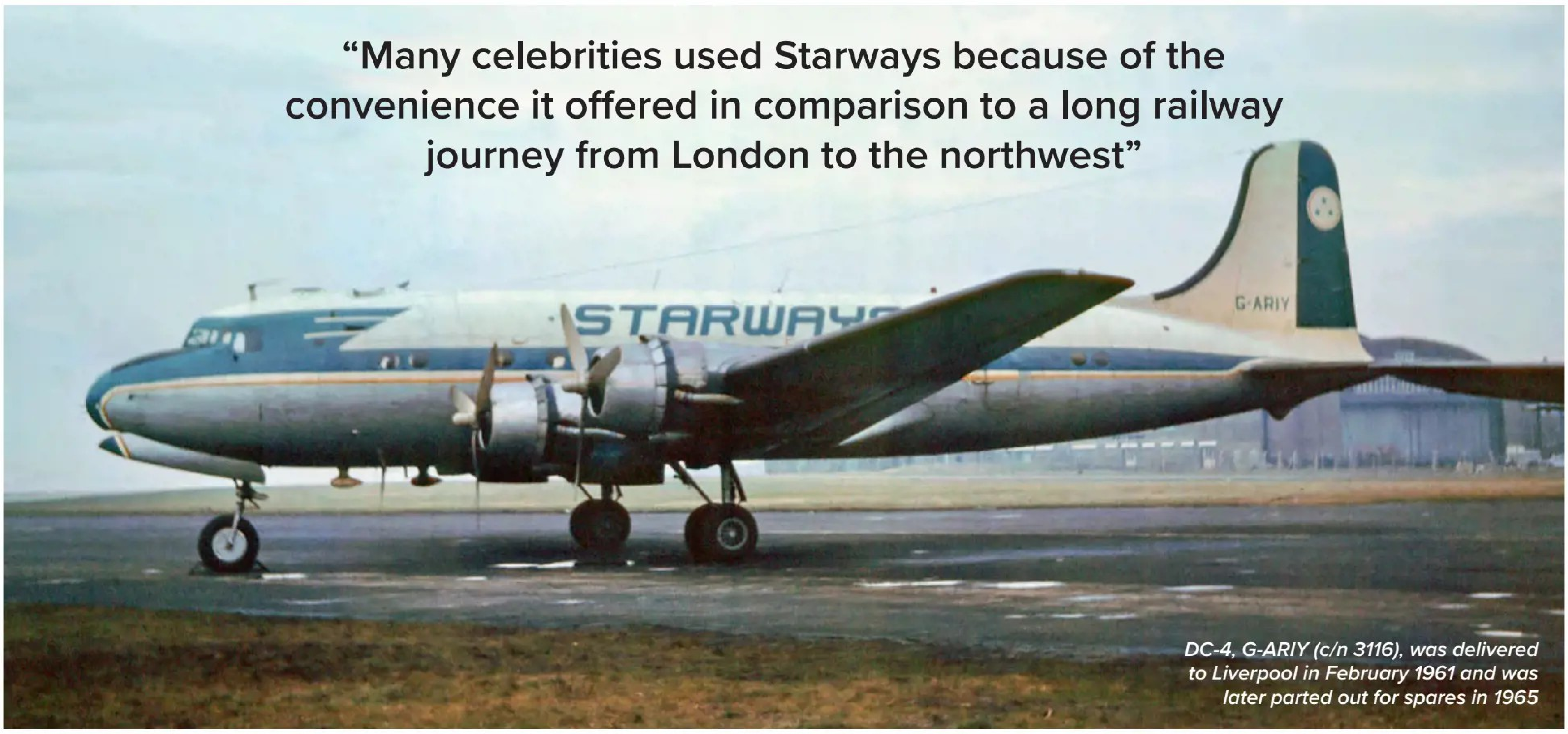
From LIVERPOOL and CHESTER (North Wales) to LONDON, GLASGOW, CORNWALL, CORK, MAJORCA, OSTEND, DINARD, LOURDES, SAN SEBASTIAN, SANTANDER, MALAGA, TORREMOLINOS, COSTA BRAVA, BARCELONA, PISA (Viareggio), ROME and ALBENGA

STARWAYS

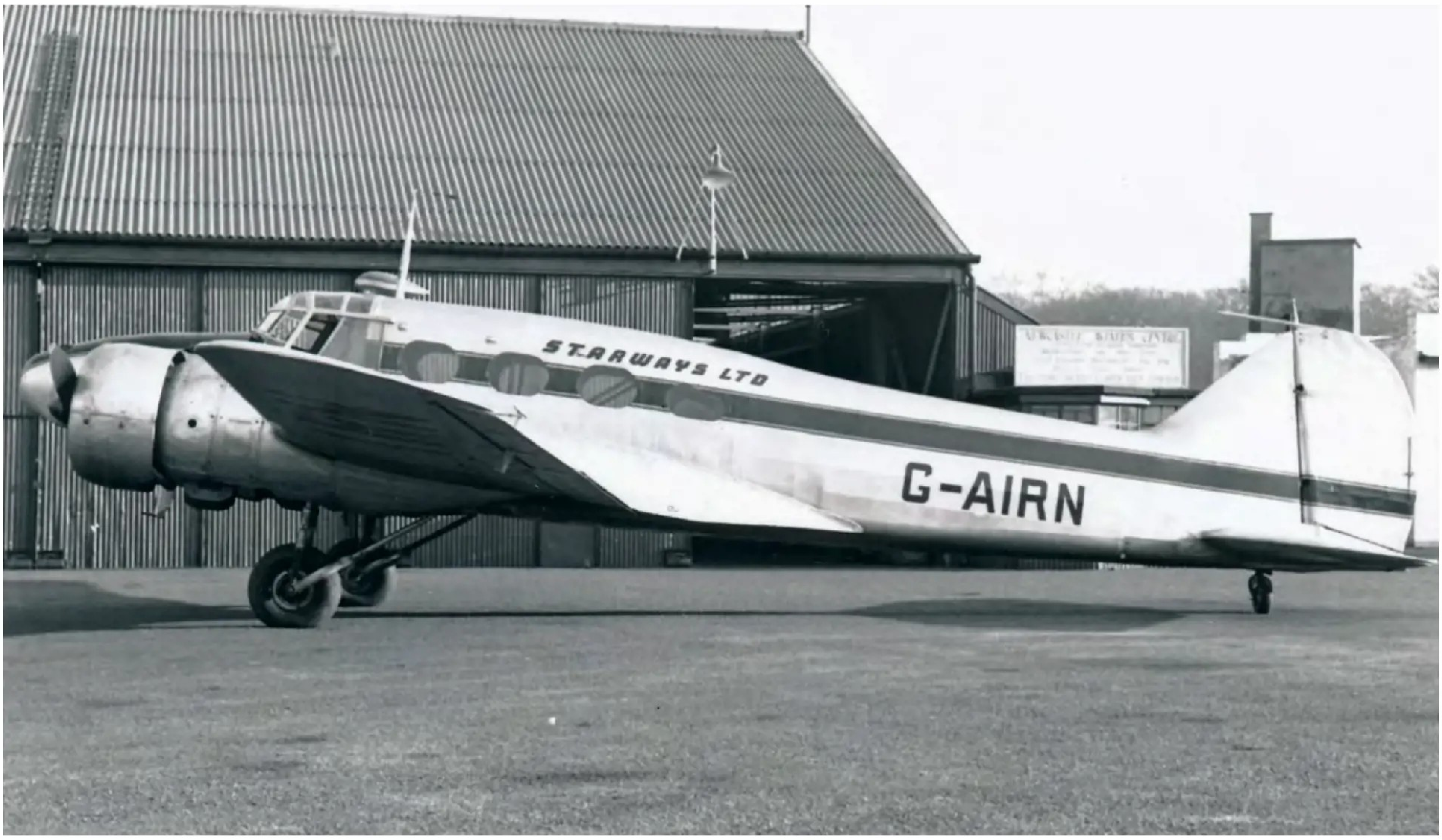
49, Bold Street
Tel: ROYal 0001
23, Moorfields
Tel: CENtral 6767
Hawarden Airport
Tel: Hawarden 3001

OR LOCAL AGENT

> "Many celebrities used Starways because of the convenience it offered in comparison to a long railway journey from London to the northwest"



DC-4, G-ARIY (c/n 3116), was delivered to Liverpool in February 1961 and was later parted out for spares in 1965


STARWAYS LTD
G-AIRN

left base you might never be sure when you were going to return. Off schedule is a term used to placate a crew when something goes wrong and on one such flight to Rome the crew were to position the aircraft back to Liverpool, empty. But charter flights make money and so the crew operated Rome-Dublin, Dublin-Lourdes, Lourdes-Rome, Rome-Dublin-Liverpool, and arrived back at base a week behind schedule, but happy nevertheless – the comradery at the airline was second to none.

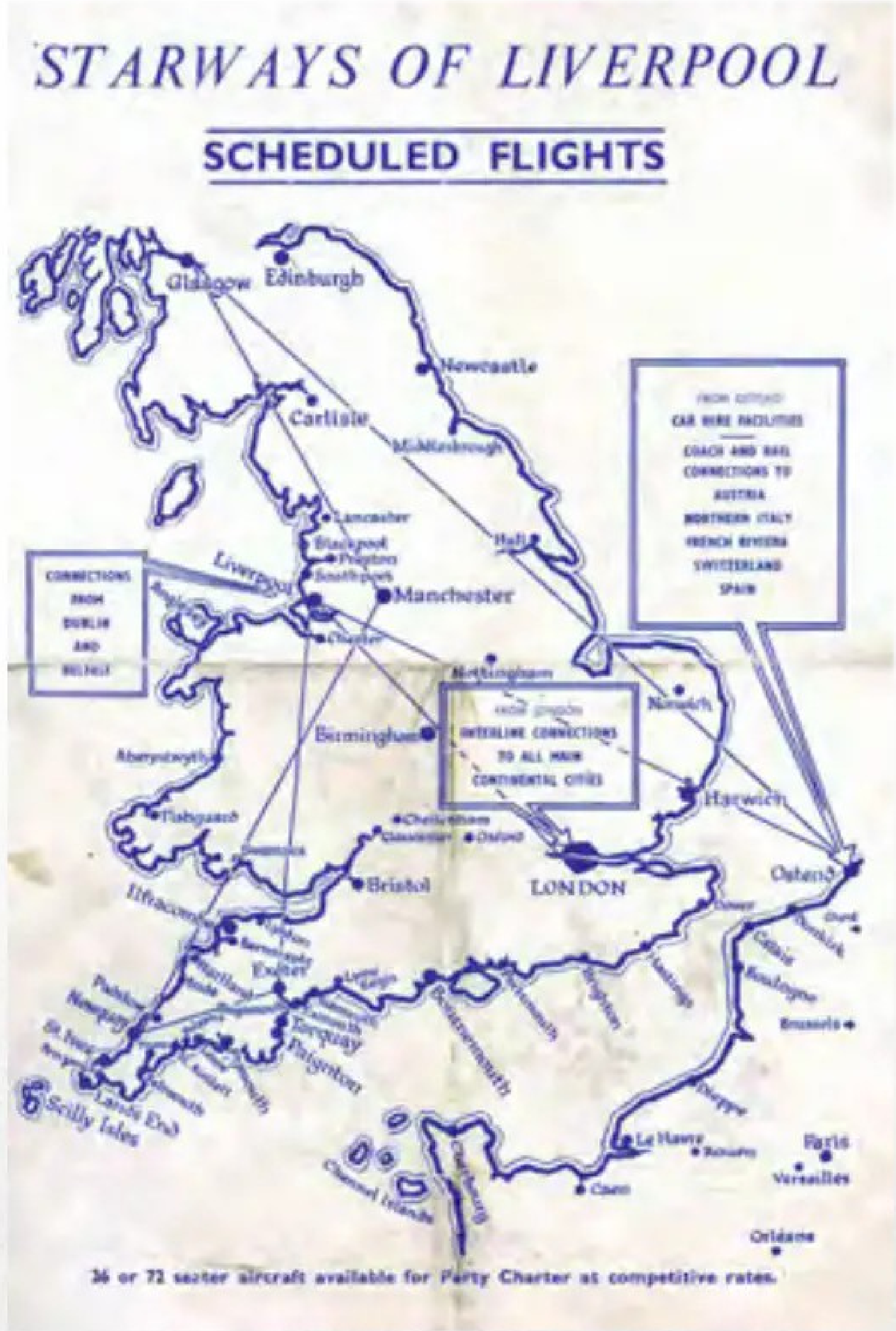
Ups and downs

The London service continued to attract passengers, so the airline added Hawarden near Chester to this route in April 1962, making the rotation between Liverpool and Chester one of the shortest routes in the world at around 13 miles. Many celebrities used Starways because of the convenience it offered in comparison to a long railway journey from London to the northwest. These included The Beatles, Ken Dodd and actor Gregory Peck, with the fab four apparently on first-name terms with the crew because they travelled so frequently on the Liverpool-London route.

Starways had a very frosty relationship with the Air Transport Licensing Board (ATLB), as did many of the smaller UK carriers. Unless you were BEA or BOAC, it seemed a »

ABOVE: ***The six-seat Avro Anson, G-AIRN, was the second aircraft acquired by the fledgling airline***

RIGHT: ***The 'Starways of Liverpool' Great Britain network***


STARWAYS OF LIVERPOOL
SCHEDULED FLIGHTS
Glasgow
Edinburgh
Newcastle
Carlisle
Middlesbrough
Lancaster
Blackpool
Preston
Southport
Liverpool
Manchester
Chester
Hull
Nottingham
Norwich
Birmingham
Aberystwyth
Fishguard
Cheltenham
Gloucester
Oxford
Harwich
Bristol
LONDON
Ostend
Ilfracombe
Exeter
Torquay
Paignton
Newquay
St. Ives
Lands End
Scilly Isles
Bournemouth
Brighton
Hastings
Dover
Dunkirk
Calais
Boulogne
Brussels
Dieppe
Le Havre
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Paris
Versailles
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Cherbourg
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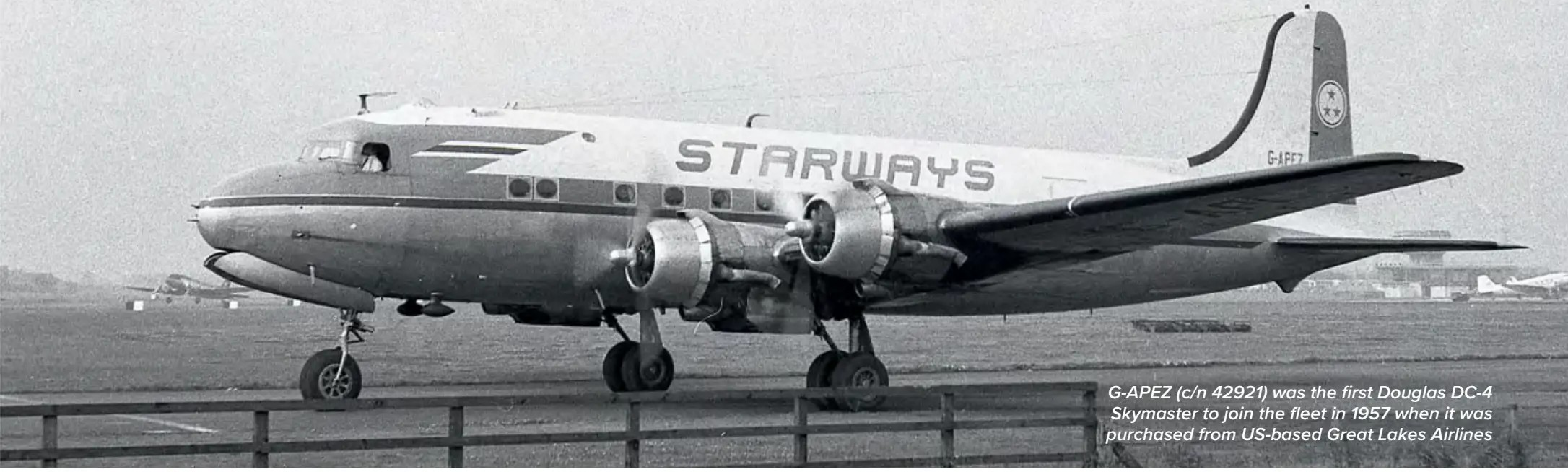
CONNECTIONS FROM DUBLIN AND BELFAST
CAR HIRE FACILITIES
COACH AND RAIL CONNECTIONS TO AUSTRIA NORTHERN ITALY FRENCH RIVIERA SWITZERLAND SPAIN
INTERLINE CONNECTIONS TO ALL MAIN CONTINENTAL CITIES
36 or 72 seater aircraft available for Party Charter at competitive rates.

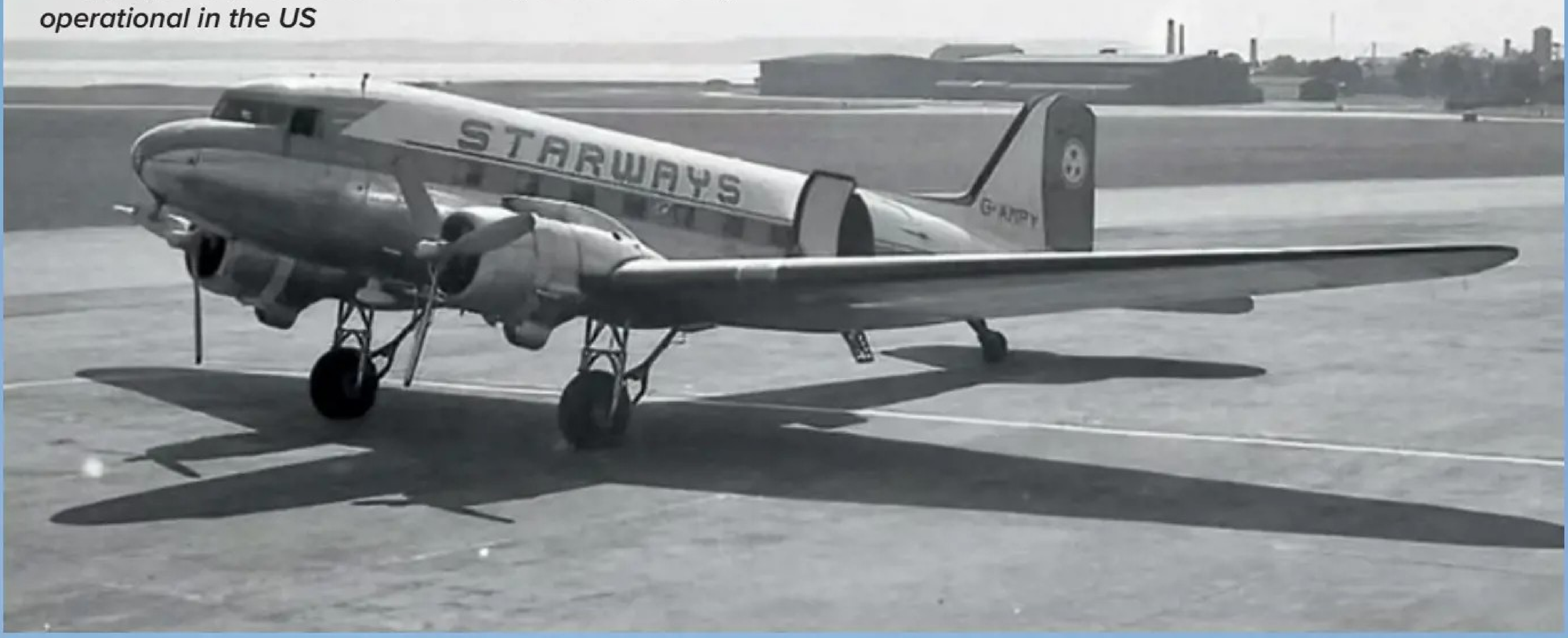

STARWAYS
G-APEZ

G-APEZ (c/n 42921) was the first Douglas DC-4 Skymaster to join the fleet in 1957 when it was purchased from US-based Great Lakes Airlines

route application was unlikely to be granted. One such application was for a service linking Glasgow, Liverpool and Manchester with Nigeria. The route in question was to be flown by DC-4s and would entail a sky-coach service at very reasonable fares via Gibraltar, Bathurst, Freetown and Accra, to Lagos, with technical stops at Jersey, Bordeaux and Las Palmas. The application was never approved, some say to protect a certain airline flying the flag from London.

The final Skymaster to join the fleet came from Cathay Pacific Airways, a vintage 1944 machine registered as VR-HFF. On the final leg of its delivery to Speke in early 1963 she arrived on only three engines, but the Starways' engineers quickly rectified the problem, and the aircraft became G-ASEN. Two Vickers Viscount 700s had joined the fleet, the first in 1961, G-ARIR (c/n 36) from Air France and the second in 1962, G-APZB (c/n 30) from Tradair. They allowed the airline to take on more charter work, leaving the carrier to dispose of some DC-3s and DC-4s. When not on scheduled services, the Viscounts could be found flying holidaymakers to the Mediterranean sunspots from Glasgow, Liverpool and Manchester.

Having had many route applications turned down by the ATLB, 1963 proved to be a hard year for Starways – although some routes were making a profit, others were very much in the red. British Eagle's Harold Bamberg saw an opportunity to gain a foothold at Liverpool by making a bid for Starways. Although Starways wasn't bankrupt, British Eagle proved to be its saviour, and jobs were saved on both the flying and engineering sides for the Liverpool workers.


On the apron at Speke; DC-3 G-AMPY (c/n 26569) saw operational service in Burma during World War Two, played a part in the Berlin Airlift, and is currently operational in the US

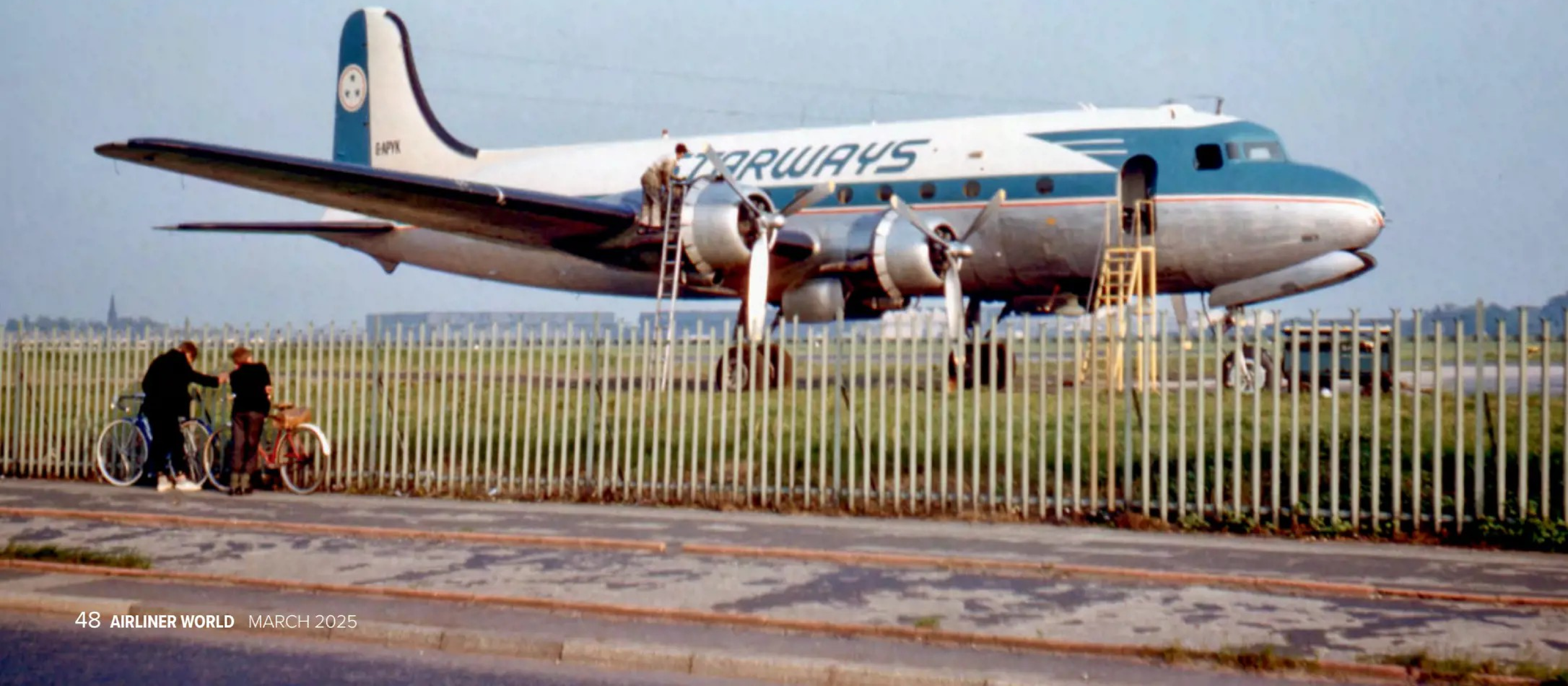
The final curtain

The airline's final day of operations was December 31, 1963, and it started shortly after 0800hrs with Captain Tickle flying the Liverpool-Hawarden-London service on Viscount G-APZB, with a full complement of passengers. Ten minutes later, Captain Goodwin flew DC-3, G-AMSN (c/n 33379), to Glasgow via Blackpool, again full of passengers. At 2010hrs that evening, the party came to an end when Tickle landed G-APZB at Speke, ending 15 years of very interesting operations for Liverpool's own airline. The following day Viscount 701 G-AMOC (c/n 13) operated from Liverpool to London, but this time primarily in the colours of British Eagle, with Starways' name on the cabin roof.

The airline's directors formed a new company called Aviation Overhauls in 1964 and took over the Starways fleet, selling or leasing the aircraft to other operators. The Skymaster made a return for another year of British Eagle operations from Liverpool, but these were three aircraft purchased from Saudia Arabian Airlines to fulfil contracts already agreed at the time of Starways' demise. AW

With thanks to Patsy Leigh for her memories of life with Starways

DC-4, G-APYK (c/n 10279), back in the days when airport fencing was a little less prohibitive



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MARCH 2025

This stunning photo was taken by Iain Knox from an elevated vantage point at the top of Manchester Airport's air traffic control tower. Jet2 Boeing 757-21B, G-LSAI (c/n 24016), is depicted – with a decidedly wintery backdrop – taking off for the final time on January 8, 2025, bound for St Athan in Wales, where it is due to be scrapped IAIN KNOX

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FLIGHT DECK DIARY:

JFK TO HKG

Stepping into the Airbus A350 cockpit, I'm always impressed by its cavernous size – much like a DC-10, I've been told – and by the clean modern layout consisting of six large cathode ray tube (CRT) screens plus two head-up displays (HUD). The colour is the standard, calming Airbus blue/grey with black switches and controls interrupted by a few red-coded, guarded items. The four of us flying today stow our overnight cases in the cockpit wardrobe and I slide my 20-year-old leather Jeppesen flight bag next to the motorised captain's seat on the left, offering a small tangible link to aircraft past.

As if our six CRT screens weren't enough, we pull out iPads that contain flight manuals, weather, notice to airmen (NOTAM), the flight plan and other aircrew tools. There is a separate aircraft tech log and cabin defects log, both using their own dedicated iPads giving us a grand total of 12 digital screens. Like an office worker settling into their cubicle for a full day's work, we adjust our rudder pedals and armrests, and fit new headset covers. The iPads are stowed away, and I pull out my combined tray table and keyboard. Next to the seat I place my black coffee in one of three cupholders available to me.

The aircraft today is Airbus A350-1041, B-LXC (c/n 188), which has been with the airline since it left the Airbus factory in Toulouse in July 2018. It is configured in a three-class layout with 46 business, 32 premium economy and 256 economy seats. Our flight departs at 3am on my body clock and is the 16-hour transpolar flight CX831, from New York/JFK to Hong Kong. It's Saturday afternoon in New York but we will land in Hong Kong on Monday evening, losing Sunday in the air.

CATHAY PACIFIC
XC

Take a seat alongside Cathay Pacific A350 captain **Mawgan Grace** as he reports from the cockpit on the airline's longest flight, from New York to Hong Kong

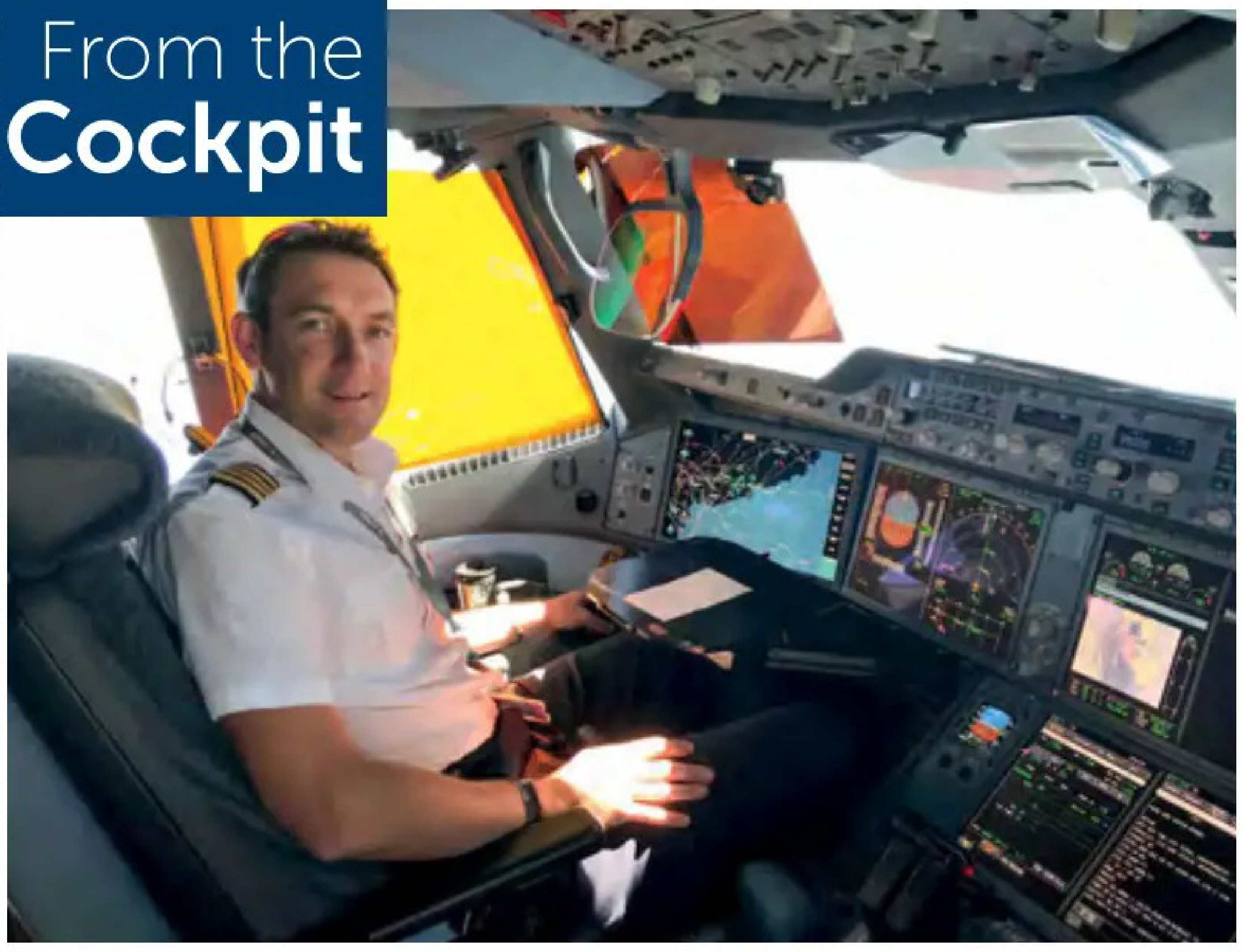
BY A350

For this epic journey – currently the longest in our network – we will cover 7,382nm and route up the Eastern US seaboard, the remote Canadian bush, over Greenland's mountains and almost directly over the North Pole, before continuing south through Russia and China, approaching Hong Kong from the north. If it was any other sector I'd take more fuel, as there's a typhoon approaching Hong Kong. However, there is a fine balance between commercial responsibilities and aircraft performance, while respecting weather forecasts and maintaining both safe margins and alternate diversion options. Using 24-hour terminal area forecasts (TAFs) and respecting the limitations and capabilities of our aircraft, we will have about 15 minutes of holding fuel in Hong Kong before potentially diverting to Kaohsiung in Taiwan as our fair-weather alternate bolthole. However, if we want to add an extra ten minutes of holding endurance we must load and carry 1,000kg of additional fuel, and after 16 hours flying at the increased weight, we will have burned 400kg of it, leaving just six minutes extra. It's very, very costly to tanker fuel on long-haul sectors and our A350-1000 is the most efficient airliner in service today. If we do divert, our maximum crew duty of 18 hours may be exceeded, and another crew will need to board for a gas-and-go turnaround to our home base.

No minute wasted

From the moment we sit in our seats there isn't a minute of wasted time. In the cabin the army of cleaners are finishing making the aircraft look as if it's never been used before, like a fresh hotel room. The caterers load around 600 meals, enough for two main meal services, plus the best wines, spirits and soft drinks »

Cathay Pacific Airbus A350-1041, B-LXC (c/n 188), departing Tel Aviv/Ben Gurion at sunset in November 2021
AIRTEAMIMAGES.COM/IDO WACHTEL



ABOVE: *At New York/JFK, captain Mawgan Grace takes the left-hand seat in the A350's glass-panel cockpit* MAWGAN GRACE

TOP RIGHT: *Ground crew load hold baggage containers and cabin supplies, and pump in 1,000 litres of water for the toilets* MAWGAN GRACE

BELOW: *American ground crew load hold baggage containers and cabin supplies at the front of the aircraft* MAWGAN GRACE

for ravenous passengers. Fresh water for the toilets – 1,000 litres of it – and 116 tonnes of Jet A fuel are pumped onboard while engineers perform their final checks and begin to sign off the aircraft as 'released for flight'. All sorts of cargo, acceptable dangerous goods and baggage, thumps and shakes the aircraft with every heavy pallet loaded. Even though we are used to this process, the occasional large crash of a pallet distracts us momentarily from our preparations as we empathise with our aircraft and its ill treatment.

In the cockpit we complete our individual and choreographed duties. There are switching flows before every checklist to make sure every system is in its correct state. The route, performance data and waypoints are meticulously checked by both the pilot flying (PF) and pilot monitoring (PM). Expected winds and temperatures at altitude are uploaded so the flight management computer can predict step climbs, fuel usage and our estimated time of arrival at waypoints. Our second officer is preparing our bunks, located above the business class galley, and the relief captain is performing an outside check of the aircraft. Even with teams of qualified ramp engineers, it's still the operating pilots that have final judgment over the serviceability of their aircraft. It's our lives on the line as aviators and we are the last line of defence against any possible human error.

As captain, I am the focal point of the operation and there are many distractions. The refueller, engineer, traffic officer and senior cabin manager all want paperwork checked and signed, offloading the responsibilities of their domain on to me. There are often maintenance challenges that may require special procedures and cabin related issues. Setting up the aircraft for flight is the easy bit.

After 60 minutes the countdown is up. Our clearance has been obtained from air traffic control (ATC) through a satellite datalink, and the take-off briefing and departure cockpit preparation checklists are completed. Refuelling complete, the data has

MICHELIN
A0340
A350-1000
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AIR X
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LEFT: *The relief captain makes a walkaround, checking everything from the tail to the tyres, wheels and brakes* MAWGAN GRACE

been sent via Wi-Fi from the fuel truck to our computerised flight plan. After a gross error check and distribution check on the fuel synoptic page, the seatbelt sign is turned on and I welcome the passengers onboard with some basic flight information while reminding them to watch the safety demonstration.

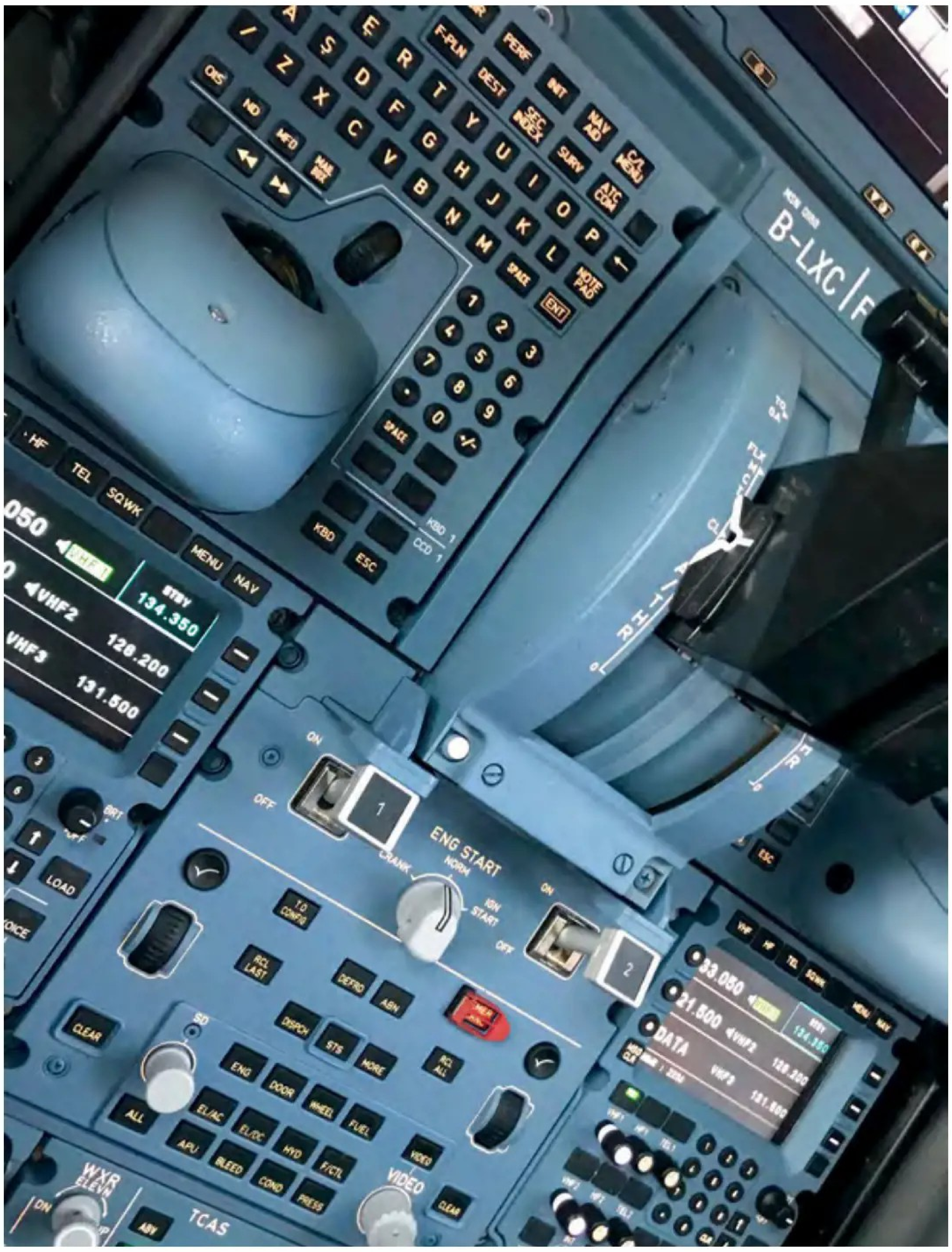
The doors are all closed, and we are ready for start and pushback. In front of me I select my taxi camera and can see the tug and surrounding area. On my navigation display I've selected the airport diagram showing our superimposed position. My HUD tells me what taxiway I'm on and warns "runway ahead" if I'm about to enter an active runway. In a thick Brooklyn accent, the ramp control woman on 129.2 clears us for pushback and start. Notifying the tug driver, we are slowly pushed backwards and when cleared, I set the engine start switch to IGN/START. The aircraft goes quiet as the air conditioning packs automatically turn off in anticipation for start. I call "engine one start" and set the fuel control switch to on. Auxiliary power unit bleed air is immediately diverted to the pneumatic starter and the giant 97,000lb thrust of the Rolls-Royce Trent XWB-97 turbofan engine starts to crank. The whole process is usually controlled automatically by the full authority digital engine control (FADEC) so no limits can be exceeded. Once both engines have started and our after-start flows are completed, I release the ground engineers and they walk away to a safe distance, showing us the steering bypass pin – I give them a wave, then complete the after-start checklist and my PM requests taxi.

Computer assisted

The aircraft is heavy – over 300 tonnes – and requires a significant amount of thrust to get her moving. Gently, I use the small tiller with my left hand to steer. However, there is a computer-assisted heading control function to help maintain a straight line in crosswinds and on taxiway slopes, like lane-assist in a modern car. Flight controls are checked in a similar way to any other aeroplane, although we study the control surface synoptic page instead of looking out visually.

The cabin crew have finished their safety demonstration and confirm the cabin is ready for departure. Checks are completed and ATC clears us for take-off from runway 31L on the Kennedy 5 departure. It's still a buzz when lining up on a 14,500ft brightly lit runway and hearing its grooved surface make a faint reassuring buzz under the nose gear. Brakes off, my left hand holds half forward side-stick pressure to counteract thrust from the underslung engines. My right hand pushes the thrust levers to set 25% thrust; engine thrust now »

LEFT: *The walkaround inspection includes the underside of X-Ray Charlie's tail* MAWGAN GRACE



RIGHT: ***The captain's view of the engine start toggles and thrust levers*** MAWGAN GRACE

RIGHT: ***Each Rolls-Royce Trent XWB-97 turbofan engine produces 97,000lb of static thrust*** MAWGAN GRACE

symmetrical, I push the levers all the way to the gate giving maximum take-off go-around (TOGA) thrust of 194,000lb at sea level international standard atmosphere (ISA). The engines whine and I'm pushed back in my seat; even though the jet is 310 tonnes, she accelerates quickly. I scan the airspeed, thrust and exhaust gas temperature (EGT) throughout the take-off run while my right hand and fingers rest on the thrust levers, full of anticipation to abort the take-off, like a Wild West gunslinger poised to react to any warning that may appear. The clever software inhibits nuisance warnings and cautions, and will only inform us of something critical to flight safety.

Once V1 is audibly announced, my hand returns promptly to my knee. We've reached our go/stop point which means a system failure now must be taken into the air as there isn't enough runway to stop safely. It's a long transit through no-man's land before the first officer calls "rotate." Gently but assertively, I squeeze back-pressure on the sidestick and the nose rises. Approximately four seconds later I've achieved the required 12.5° of pitch attitude on the HUD and safely clear of the ground, I call for the gear to be raised. Passing 400ft, my flight director leads an early 90° left turn following the standard instrument departure noise abatement procedure. At 1,500ft above aerodrome level, I reduce thrust to the 'climb' detent, set a pitch attitude of about 10°, and as we accelerate, I call for flap zero. The lights of New York are passing by – we are on our way.

A game of leapfrog

For the next 14 hours our job is to effectively play a game of leapfrog whereby we select potentially suitable alternates en route in anticipation of an inflight emergency, scrutinising their weather and NOTAMs. Tactical decisions regarding optimum step climbs and weather avoidance keep us busy while all the time there is some kind of communication with the ground via satellite datalink, VHF or HF. However, today we have an R3 solar warning, with anticipation that there will be periods of time over the North Pole when we won't be able to communicate with anyone.

With four pilots, we split the rest, and I plan to be back in the operating seat nice and early for our arrival at Hong Kong to make a final assessment of the brooding typhoon. As with any operating pilot, there is never a time of complete relaxation. There are too many complicated man-made components that have the potential to go wrong, even on one of the world's most reliable, safe and well-maintained aircraft. Twice before I've ended up dumping fuel and declaring a mayday – one minute you are

LEFT: ***Using the head-up display (HUD) while taxiing to runway 31L at New York/JFK***
MAWGAN GRACE

CATHAY PACIFIC

MIDDLE: ***Wings bend upward, lifting the 310-tonne load as the aircraft is rotated to assume the 12.5° climb attitude***
CATHAY PACIFIC

staring at the stars with a warm cup of tea and the next you are making time-critical decisions and trying to get on the ground asap. I've gone from being fully asleep in the bunk to surrounded by fire engines on runway 28 at Shemya in the Aleutian Islands within 45 minutes. Pilots are paid for their actions and decision-making skills in these rare scenarios, and it's said you can earn your entire career wages in one critical situation. Plan for the worst, hope for the best...

Since Cathay Pacific Airways started operating out of Hong Kong in 1948 with two Douglas C-47s (DC-3s) named *Betsy* and *Nikki*, aircrew have adapted to the often extreme tropical weather. In the shoulder months there are strong northeast and southwest monsoon winds, fog and mist in spring, and continual thunderstorms and typhoons from March to November, bringing destruction to anything they consume. Our home airport, Chek Lap Kok, is situated on the northern side of Lantau Island's 3,000ft mountain range, making southerly winds a challenge as they produce fierce downdraughts and wind shear.

This afternoon, descending from the north, there is an ominous colour to the mischievous Asian sky, an angry grey-orange hue with distant flashes all around. Soon the weather radar starts to paint a messy, disjointed patchwork of reds, yellows and greens – then a concerned American-accented cockpit audio announcement warns "weather ahead". Switching over to Hong Kong area control, there is obvious stress in the controller's voice. A fast-paced rhetoric flashes between aircraft and ATC, with requests for weather avoidance headings. There is no opportunity to call them as they are in a state of flow, so we patiently wait our turn.

Anticipating the inclement weather, it's reassuring that our cabin is secure, with all passengers and crew strapped into their seats oblivious to the world outside. I'm guessing most passengers are still engrossed in their inflight entertainment and maybe they don't want to know what threats and challenges face their high-speed carbon fibre tube. Clouds rise like deadly, flashing castles as we weave between them, descending and trying to reach the initial approach fix for runway 25R. Everything is dynamic now, stirred up by the great typhoon. Invisible winds, indicated on our navigation display, are jostled and eddied by the surrounding mountains, shaking us violently in our seats. Any horizon there once was, has gone and we are in thick wet cloud. Descending through 10,000ft, our cockpit conversation must now become sterile, meaning only operational communication is allowed. As the engines strain and whine against the gusts, my mind is anticipating a possible predicted or reactive wind shear alert. For this our memory items are to select maximum thrust, maintain configuration and climb to get away from the ground as fast as possible.

Strong headwind

Cleared for the approach, the localiser and glide slope are captured as we maintain flap two. The Airbus 'ground speed mini' function maintains a higher-than-normal managed speed due to the strong headwind, thereby maintaining our energy and greater aerodynamic margins when the headwind is suddenly lost. At eight miles I call for "gear down" and my first officer lowers the wheel-shaped lever. The undercarriage doors open in a loud roar before the gear uplocks

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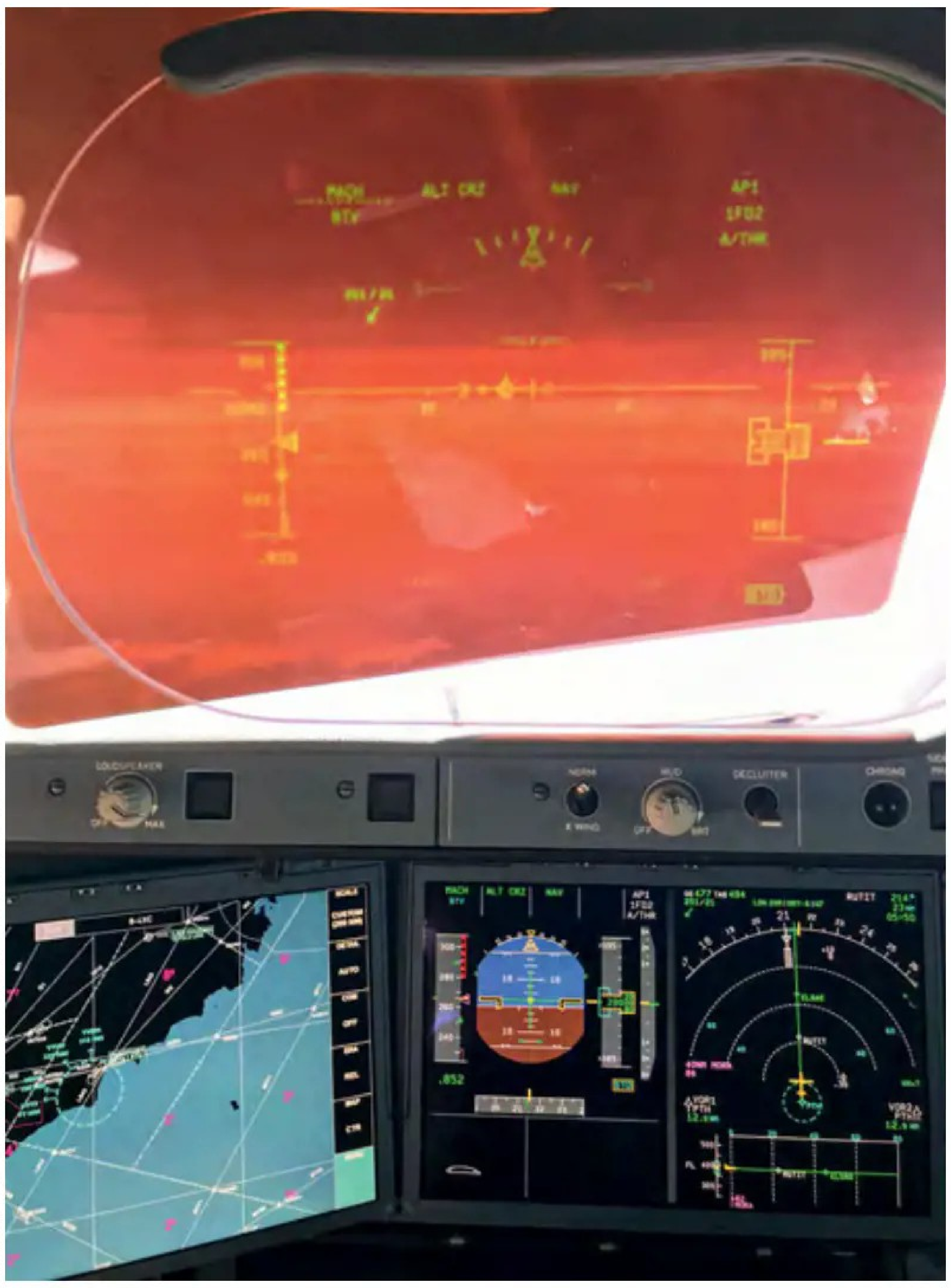
EMER ELEC PWR

LEFT: ***A clean modern layout in the calming blue/ grey colours of Airbus incorporates six cathode ray tube (CRT) screens***
MAWGAN GRACE



TOP: ***The calm before the storm – at cruising altitude*** CATHAY PACIFIC

ABOVE: ***Replicating the primary flight display, the HUD allows a good lookout to be kept*** MAWGAN GRACE

MIDDLE RIGHT: ***The final approach to Hong Kong in high winds and turbulence required assertive and occasional full sidestick control*** MAWGAN GRACE

release, sending the huge Messier Dowty bogies down into the airstream, locking down in a reassuring lateral kick. This is then complemented by 'three greens' highlighted on our electronic centralised aircraft monitor (ECAM) display.

Thrust increases to counteract the increased drag and we fully configure for the approach, setting our target speed of 145kts. Breaking out of the low cloud at around 1,000ft, the windscreen wipers are set to maximum but are about as effective as those on my 1957 Land Rover. The runway lights bloom out of the right side of my HUD which I've set to 'X-WIND'. The aircraft is alive and responding to every gust, pitching and bucking, engines whining as she dances to the malicious wind. Suddenly, the audio alert "1,000" sounds: the stabilised approach point where we must be fully configured and at our approach speed. The speed trend vector acts like a seismograph as our cockpit is tossed about.

The aircraft has done a magnificent job so far but now it's time to disconnect the autopilot and try to get a feel for the situation. Taking a breath, I press the red disconnect button on my sidestick but decide to leave the auto thrust in as it's been doing a great job so far. In my mind, I'm consciously telling myself to try and ride the gusts and make small inputs. However, the added turbulence at low level from the terminal buildings requires occasional assertive flight path correction and occasionally, through my hand, I feel the limit to sidestick movement as it reaches its maximum deflection. Surely any second we must have a wind shear alert sending us into a mandatory go-around like so many aircraft before us today?

ATC clears us to land on runway 25R, wind 180/25 gusting 35. Our maximum crosswind limit is 40kts, including gusts. Keeping as steady a pitch attitude as possible as the flight director bird in the HUD dances around, I'm concentrating more and more on the red and white precision approach path indicator (PAPIs) with my touchdown aiming point between them. The powerful Trent engines create a huge pitch couple with every change in thrust, but I'm in my flow now and my muscle memory is reacting to every gust automatically. "50... 40... 30..." I gently flare and press on the right rudder pedal, "20", hold the left into-wind wing down... hold it... hold it... and with a light touch, the left main bogie makes contact first. Ground spoilers automatically deploy to dump our remaining lift and as I gently lower the nose, my right hand reaches forward to pull back the thrust reverser levers to maximum. A satisfying roar accompanies our brake to vacate (BTV) autobrake, designed to reduce our speed to ten knots, 60m before our selected runway exit, with antiskid. The efficient Airbus wing is still wanting to fly, so I maintain full into-wind aileron until we reach our taxi speed. Our huge fin is trying to weathercock us. Decelerating through 40kts, I disconnect the autobrake using the switch on the end of the thrust lever and turn off the runway using the left rudder, stowing the reverse thrust levers.

A few seconds ago, our world was hectic; there was noise and violence, sweat, concentration and anticipation. Now suddenly everything is calm, orderly and sedate. The inflight service manager nonchalantly welcomes the passengers to Hong Kong, while I am sure the last few thousand feet got their attention. All our planning and training certainly came into play today, along with a fair amount of luck – one gust can make the difference between a landing or go-around and diversion.

Stick and rudder

As a private pilot, I'd never consider flying in conditions such as these but in commercial operations there is so much training, with safety limitations and technology all providing a safe, protective operational bubble. Yet old-school airmanship and common sense will always have their place. 'Stick and rudder' flying skills are also crucial as opportunities for practicing manually flown visual approaches on the line have almost disappeared due to complex noise abatement procedures and high-density airport operations. Our three-monthly simulator sessions provide some opportunity, but this is also limited as regulatory items take precedence, therefore my solution is to keep current in light aircraft. It seems incredible that my friend's 1946 Stampe is still the perfect accompaniment to operating a state-of-the-art fly-by-wire A350-1000. It shows that even on the most complex airliner, basic flying skills are still critical if technology fails. We have certainly come a long way in aviation, but its core principles and practices remain unchanged. AW

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Taxiing towards the terminal at Chep Lak Kok – a few seconds ago our world was hectic but suddenly everything is calm, orderly and sedate
MAWGAN GRACE

Made in CHINA

China's history of airliner production has been marked by both setbacks and successes. From the early days of the Y-10 to the more recent C919, the country's aviation industry has evolved significantly, as **Thomas Haynes** explains

B-919A
COMAC C919

China's track record in airliner production is patchy to say the least. The Shanghai Y-10 became the country's first foray into the commercial jet market in the 1970s. Considered by many to be a Boeing 707 lookalike, the quadjet unfortunately didn't match the commercial success of its American counterpart. Only three were built and just one ever flew.

Development by what is now the Shanghai Aviation Industrial Company, part of the Commercial Aircraft Corporation of China (COMAC), began in 1970 and, by June 1975, the blueprints and technical drawings had been completed. Production of the first prototype began immediately and static testing of a skeletonised and stripped airframe commenced in September 1976, followed by destructive testing in November 1978. Despite these positive development milestones, the programme was plagued with powerplant and wing problems.

At the outset, Chinese designers attempted to copy the Rolls-Royce Spey and later the Pratt & Whitney JT3D, to no avail. After repeated attempts, the programme simply adopted the JT3D for use on the Y-10. A similar story played out with the wings. Engineers initially attempted to copy the 707's, but ended up incorporating reverse-engineered versions from the Hawker Siddeley Trident. This move acts as a partial rebuttal to the notion that the Y-10 was 'just a 707 copy'.

The first airframe, B-0001 (c/n 0001), never flew. Instead it was destined for further static trials, including 1,400 hours of wind tunnel testing. The second, B-0002 (c/n 0002), was finished and submitted for flight testing in 1980, its maiden flight taking place on September 26, 1980. It went on a tour of China and was recorded visiting Beijing, Chengdu, Guangzhou, Harbin, Hefei, Kunming, Lhasa and Ürümqi. B-0002 carried out 130 flights before it was retired in 1983. The third and final airframe was also destined not to fly, instead being reserved for fatigue testing.

The Y-10 programme was cancelled in 1985. A multitude of factors influenced this decision, but it can't have helped that, around this time, China bought a significant number

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CHINA EASTERN
中國東方航空
C919
THE WORLD'S FIRST C919
19A

BELOW: ***China Eastern was the launch customer for the COMAC C919***
AIRTEAMIMAGES.COM/JAY LEE

LEFT: ***The Shanghai Y-10 was China's first foray into the passenger jet market in the 1970s*** KEY COLLECTION

ABOVE: ***Only one of three Y-10s, B-0002 (c/n 0002), ever flew*** KEY COLLECTION

of aircraft from Boeing, including ten 737s in December 1982.

Xi'an MA60

A more modest success story comes in the form of the Xi'an MA60, a turboprop airliner produced by China's Xi'an Aircraft Industrial Corporation under the Aviation Industry Corporation of China (AVIC). The MA60 was developed in the 1990s based on the stretched Y-7-200 model, which was itself created from the Antonov An-24.

In a sign of things to come, instead of trying to copy western technology, the MA60 featured a greater emphasis on properly integrating the equipment in order to attract foreign airlines. The turboprop – which typically seats around 60 passengers – featured Pratt & Whitney Canada PW127J engines, the same PW100 series powerplant found on ATR 42/72s, De Havilland Canada Dash 8s and Fokker 50s.

The MA60 mustered 26 orders from six domestic airlines following its maiden flight on February 25, 2000, but it would take another five years for international interest to result in a commitment, with Air Zimbabwe agreeing to purchase two in 2005. According to ch-aviation, 119 examples have been produced over the years. Today, the aircraft remains in very limited commercial use even in China. According to the *Airliner World Global Airline Guide 2024*, the primary user is Joy Air – which is a joint venture between AVIC and China Eastern Airlines – which has 24 in its fleet. Laos-based Lao Skyway is the next largest operator with its three-strong contingent.

In 2008, Xi'an unveiled the MA600, an improved and updated version of the MA60. Using the same airframe as its predecessor, the turboprop's only physical difference is the relocation of the passenger door to the forward starboard fuselage and the inclusion of integral stairs. The most recent chapter for the MA60 comes in the form of the MA700, an in-development variant boasting an all-new design with approximately 80 seats. It was rumoured to have first flown in September 2021, but problems securing a reliable supply of engines meant the programme's future has been thrown into doubt.

Harbin Y-12

On the smaller end of the spectrum, the Harbin Y-12 is a high-wing turboprop utility aircraft equivalent to the De Havilland Canada DHC-6 Twin Otter. More than 200 of the type have been produced since 1985 and, in 1995, it became the first Chinese-built aircraft to receive certification from the US Federal Aviation Administration (FAA). More recently, the Y-12F, the latest variant of the Pratt & Whitney PT6A-powered turboprop, received European Union Aviation Safety Agency (EASA) type certification in July 2023.

The Y-12 has been used by a number of international carriers over the years, including in countries such as Uganda, Tonga, Mongolia, Malaysia, Fiji, the DRC, Nepal and Colombia. Previous generations of the type were known to suffer reliability problems, high operating costs and a shortage of spare parts.

C909

Today, China has two commercial passenger jet aircraft in production, both of which are produced by COMAC, and have so far been significantly more successful than their predecessors. The C909 – originally called the ARJ21-700 before its November 2024 rebranding – is a 78-90-seat regional jet. Development began in 2002 and its maiden flight occurred on November 28, 2008. The first example entered service with Chengdu Airlines on June 28, 2016.

Since then, the global fleet has continued to increase and, as of December 2024, numbers of

BELOW: ***Xi'an-based Joy Air is the largest operator of the Xi'an MA60, with 24 in its fleet*** AIRTEAMIMAGES.COM/ JAY LEE

RIGHT: ***Internationally, Laos-based Lao Skyway is the largest MA60 operator, with its three-strong contingent*** DANIEL JOHNSTON

RIGHT: ***The Harbin Y-12 is the first Chinese-built aircraft to receive FAA certification and the Y-12F (pictured) achieved EASA approval in July 2023*** AIRTEAMIMAGES.COM/ ALPHA ROMEO

in-service airframes stood at 151, according to aviation intelligence company IBA. The top operators of the jet are Air China and China Southern Airlines, both of which have 33 examples in their fleets. Launch customer Chengdu follows closely behind with 32, while China Eastern Airlines and China Express Airlines round out the top five with 26 and 11, respectively.

"The delivered aircraft have already accumulated half a million flight hours and have carried roughly 40 million passengers," said Jiang Shuai, engagement manager at Alton Aviation Consultancy, in an interview with *Airliner World*.

According to IBA, COMAC has a 323-strong order book for the C909, which is powered by two General Electric CF-34 engines, the same model found on Bombardier CRJs and Embraer E-Jets. The regional aircraft is available in two passenger variants, the STD and ER. The former offers a 1,400 mile range, while the latter tops out at 2,300 miles.

"The C909 is the first model that COMAC has produced, so there's a learning process in terms of the production and support for the aircraft," said Mike Yeomans, director of consulting and valuations at IBA, when asked about the C909's success. "It's clear that COMAC have their eyes on developing the larger narrowbody aircraft, so they may have hoped for it to be a larger fleet size by now, but I do think the learnings acquired from the C909 will certainly feed into the C919 programme."

Internationally, the C909 can only be found in operation with Indonesia's TransNusa. "There is still a domestic Chinese link with the China Aircraft Leasing Company (CALC) being an investor and shareholder in TransNusa," said Yeomans. "The [three] aircraft are leased from CALC, so are still Chinese-owned, but operated in Indonesia by TransNusa."

C919

While the C909 is carving out its position in the regional jet market, it is COMAC's larger narrowbody offering that has been getting all the attention lately. The C919 entered commercial passenger service with China Eastern on May 28, 2023, and is seen as a step up in terms of technology compared to the C909, designed to compete directly with the Airbus A320neo and Boeing 737 MAX.

Powered by CFM International LEAP-1C engines – the same type of powerplant found on both the A320neo (LEAP-1A) and 737 MAX (LEAP-1B) – the C919 is currently only certified by the Chinese aviation regulator. However, reports suggest COMAC is targeting EASA certification this year.

"To get broader international acceptance and expansion will clearly be an aim," said Yeomans, when asked »

BELOW: ***The C909 (formerly ARJ21-700) was first introduced by Chengdu Airlines on June 28, 2016*** AIRTEAMIMAGES.COM/ MARKUS MAINKA

TransNusa
MEMBER OF AirAsia
ARJ21-700
PK-TJB
TJB

ABOVE: ***Indonesia's TransNusa is the only international operator of the C909*** RICHARD VANDERVORD

about the purpose of pushing for European certification. "It's going to be a quicker route to international markets than FAA certification." COMAC is thought to want to use EASA approval as an indicator that the product meets the highest levels of safety.

So will we soon see the C919 flying in airline service in European skies? Alton's Shuai thinks COMAC's focus instead will be on capturing the Asian market: "I think this strategy makes sense because this market is geographically closer to China. It's easier for COMAC to set up their critically important customer service/support system, and if they could get aircraft in this region operating successfully at scale, with the prestige of EASA certification, capturing the Asian market is not impossible."

According to IBA, 16 C919s are in airline service, ten with China Eastern and three apiece for Air China and China Southern. The type's order book currently stands at 613 against the A320neo's 1,952 and Boeing 737 MAX 8's 3,127.

Despite being a domestically-produced airliner, like its US and European counterparts, the C919 is really an international collaboration. According to US think tank the Center for Strategic & International Studies, American giants such as Honeywell Aerospace and Collins Aerospace are heavily involved in supplying components and assemblies for the jet. The former is responsible for the fly-by-wire flight control system, landing gear wheels and brakes, air data systems, inertial reference systems, APU and engine starter, while the latter is supplying cabin management systems, weather radar, ice detection and protection systems and emergency generators.

Joint ventures with international suppliers also play a big part in the C919's supplier story. State-owned AVIC – under which the MA60's manufacturer sits – has partnered with companies such as Liebherr (landing gear), GE Aerospace (the flight management system, flight recorders and standby instrument system), Parker Aerospace (hydraulic systems), to supply the C919. AVIC also constructs the fuselage, empennage and engine pylons as a solo exercise.

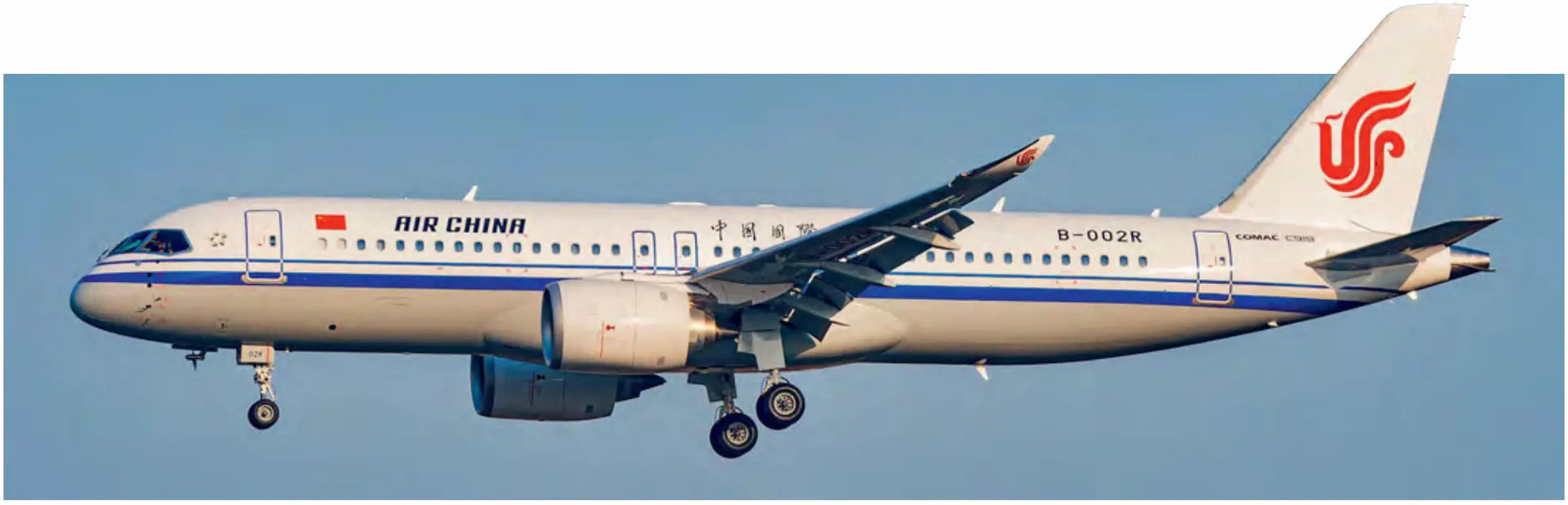
The use of third-party suppliers is a widely accepted practice adopted by Airbus and Boeing for their own programmes. It also could mean COMAC will have an easier ride getting its C919 certified because it features known parts.

The notion that the aircraft could be significantly cheaper to buy than its western rivals does not play out in reality. According to IBA, a typical new-build C919 is valued at $49.38m. This compares to the A320neo and 737 MAX 8 which the intelligence company values at $55.59m and $55.50m, respectively. This equates to

LEFT: ***China Eastern's first C919, aptly registered B-919A (c/n 00007), being rolled out for the first time*** COMAC

LEFT: ***The cabin of the China Eastern's first C919*** AIRTEAMIMAGES.COM/MEHRAD WATSON

中国南方航空
C919



an approximate 12% saving for airlines opting for the C919. It's important to note that these figures do not take into account bulk order discounts or any special deals airlines may negotiate at time of purchase.

C919 in service

The C919 has been in commercial service for almost two years. Over that time it has experienced a slow and steady growth in terms of its use as more aircraft are delivered and airlines expand their flying programmes with the type.

According to IBA data, in June 2023 (the first full month of commercial service), there was an average of 56 flights per aircraft. This compares to a global average during the same month of 121.6 and 132.8 for the 737 MAX 8 and A320neo, respectively. Since then, the C919's utilisation has slowly increased to a most recent three-month rolling average of 80.9 flights per aircraft per month up to December 2024. This compares to 117.6 and 132.9 for the 737 MAX 8 and A320neo, respectively.

When it comes to sector length, for the three-months up to December 2024, the C919 was being operated on flights with an average distance of approximately 770 miles. This is similar to the A320neo, which was utilised on links spanning approximately 850 miles. On average, the global 737 MAX 8 fleet flew significantly further on each flight as its figure stood at around 1,080 miles. The longer sector lengths for the Boeing could reflect the fact that Southwest Airlines is the largest operator of the type, with more than 200 in its fleet.

As of December 2024, launch customer China Eastern operated its C919s to eight domestic destinations, including Beijing/Daxing, Chengdu/Tianfu, Xi'an/Xianyang, Guangzhou/Baiyun, Chongqing/Jiangbei, Taiyuan/Wusu and Wuhan/Tianhe from its home base at Shanghai/Hongqiao. The carrier also operated the type between the Chinese capital and Xi'an. On January 1, 2025, China Eastern began deploying the C919 on its Shanghai-Hong Kong route, marking the type's first scheduled flight outside of mainland China.

The future

With only 16 C919s currently in service, the type has a long journey ahead of it in its mission to dominate the narrowbody market. Against a backdrop of supply chain shortages, scaling production is arguably one of the biggest challenges facing COMAC. IBA predicts that 22 examples will be delivered during 2025, an increase from the 12 that were handed over in 2024. However, according to media reports, the airframer believes it will make 30 C919s this year and is targeting an annual production rate of 150 within five years – a goal which some aviation industry analysts have labelled ambitious.

ABOVE: ***Air China's latest C919, B-002R (c/n 00023), was re-registered B-919Z on delivery to the carrier on December 27, 2024***
AIRTEAMIMAGES.COM/JAY LEE

Elsewhere, it will be important for COMAC to demonstrate that the C919 operations are successful. A critical component of that is effective customer support. "I think setting up this global customer service system will take time and will not be that easy to achieve," said Alton's Shuai. "This is definitely one thing that COMAC will need to put a lot of effort into."

A potential risk for COMAC is that it gets distracted by other aircraft programmes, most notably the widebody C929. The Boeing 787 Dreamliner competitor was launched in the early 2010s and is currently in the "detailed design phase" according to *Reuters*. The twinjet is predicted to have between 280 and 400 seats and a range of about 7,500 miles, which compares to 248 seats and 8,400 miles, 296 seats and 8,700 miles and 336 seats and 7,288 miles offered by the -8, -9, and -10 variants of the 787, respectively. In March last year, COMAC announced it intended to deliver the first fuselage section by September 2027.

So should Airbus and Boeing be worried about COMAC and its aircraft? The head of the commercial aircraft division at the former doesn't seem to be. At 2024's Farnborough Airshow, he told a media briefing attended by *Airliner World* that the C919 was "effectively an A320neo of sorts, with the same equipment, so there is no value being brought to the market. We do take COMAC as a serious competitor," but that the market opportunities in China and the surrounding regions are significant and will only grow, providing "vast opportunities to all contenders, Airbus included."

Whatever happens, this corner of the industry will certainly be fascinating to watch over the coming years as the available aircraft and manufacturers develop and mature. **AW**

CHINA SOUTHERN
B-919J
C919
J22
D4
T3

LEFT: ***China Southern's maiden C919, B-919J (c/n 00018), was delivered to the Guangzhou/Baiyun-based carrier on August 27, 2024***
AIRTEAMIMAGES.COM/JAY LEE

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FEATURE
MNL
MANILA
PHILIPPINES
airports of the world

Long live Manila

With airports in the Philippine capital of Manila having been numerous and varied over the years, **Robert Veitch** looks at the history of the longest serving of them all, Ninoy Aquino International Airport

The modern Ninoy Aquino International Airport is an example of organic expansion over decades, the continued growth of a city centre facility that has long outgrown its footprint, yet continues to plough a relentless forward furrow. Its four disparate terminals are spread around the airfield perimeter and together they handled 50.1 million passengers in 2024, comfortably exceeding their collective design capacity of 32 million. Today's bustling sprawl is a far cry from its origins in what was a wide-open space, four miles south of the city centre, in the years before World War Two.

Nichols Field was opened by the United States Army Air Service (USAF

ABOVE: ***The Manila tower blocks form an impressive backdrop for Cebu Pacific ATR 72-500, RP-C7253 (c/n 828), as it taxies away from the terminal in 2016***
ALL IMAGES LUIGI VALLERO UNLESS STATED

RIGHT: ***Ninoy Aquino International is the main base for Philippine Airlines and its fleet of 78 aircraft***

predecessor) in 1919, primarily as a training facility utilising the 7,766ft north-south runway 13/31. Japanese forces took control of the airport in December 1941, though the Americans recaptured it in 1945. Commercial operations moved (three miles south) from Nielsen Airport to Nichols Field in 1948 due to the latter's more level terrain, green field location, and the existing USAF runway.

The rudimentary facility was served by a single-storey terminal adjacent to the runway, which still exists as the current Terminal 4. After 1951, ownership and management of the airport became the responsibility of the Civil Aeronautics Administration (CAA) under the Philippine Department of Commerce and Industry. Its early years as a commercial facility were marked by infrastructure projects dedicated to increasing international flights. In 1954, the longer 12,260ft primary runway 06/24 and associated taxiways were constructed, followed in 1956 by construction of a new control tower which opened in 1961. Also in 1956, the CAA was transferred to the Department of Public Works, Transportation and Communications.

Nichols Field became Manila International Airport in 1961, and on September 22, the first iteration of Terminal 2 (the international terminal), opened at the southwest intersection of the runways, on the site of the old military air base. Designed by Filipino architect, Federico Ilustre, it was damaged by fire on January 22, 1972, which led to the construction of a replacement, that opened in 1973. International services transferred to the new facility, enabling domestic flights to be relocated to the 1960s structure – the arrangement continuing until May 1985 when it too was decimated by fire.

Philippines

ABOVE: *Philippine Airlines Airbus A330-343, RP-C8783 (c/n 1463), is prepared for another flight from Terminal 2*

Airport operations were overseen by a general manager and because the impact on the economy created by the hub was of such significance, the role was appointed by the nation's president. The 1970s would see a quadrupling of international flights, the launch of a masterplan in 1974 and its implementation from mid 1978. During 1982, Terminal 1 was opened, and the operations and administration of the airport was transferred to the newly established Manila International Airport Authority (MIAA).

On August 21, 1983, opposition leader, Benigno 'Ninoy' Aquino Jr was assassinated on his return from a three-year exile in the US. In less than a minute he had risen from his seat, left the aircraft, and descended the jet bridge service stairs to the apron below, where he unwittingly met his fate. A memorial plaque in the concrete marks the spot at what is now Terminal 1, gate 11 – and the terminal was renamed the Ninoy Aquino Terminal. The assassination thrust his widow, Corazon, into the limelight and she contested the

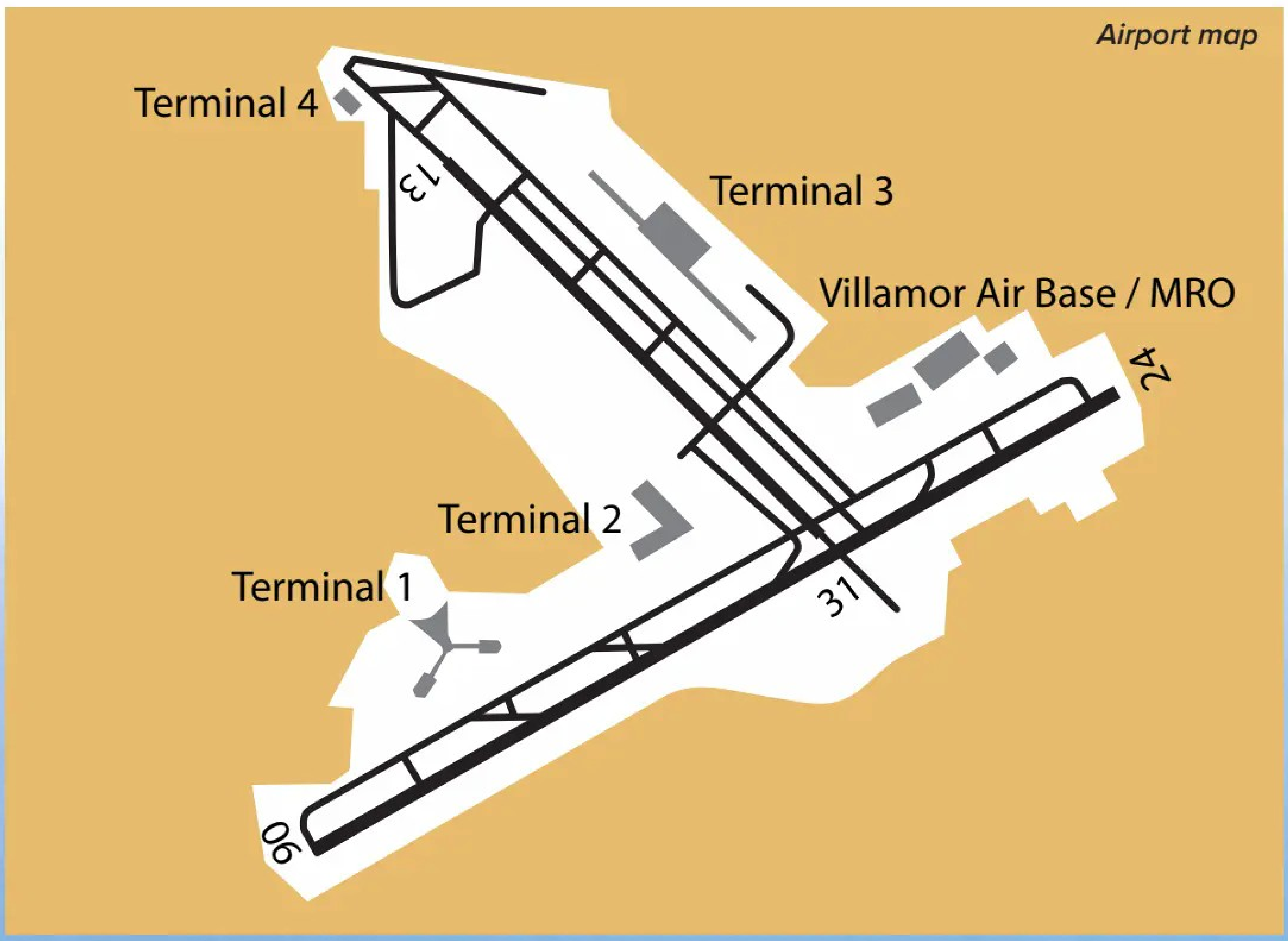
> “The rudimentary facility was served by a single-storey terminal adjacent to the runway, which still exists as the current Terminal 4”

BELOW: *Terminal 1 opened in 1982 – Mabuhay is the local word for welcome*

NINOY AQUINO
INTERNATIONAL AIRPORT
MABUHAY

LEFT: *The Terminal 1 check-in area*

LEFT: *The Terminal 2 check-in area*



1986 general election. Although she lost to the incumbent, Ferdinand Marcos, eyebrows were raised at the authenticity of the result and following a series of public protests, she assumed power when Marcos fled to Hawaii shortly after. On August 17, 1987, Manila International Airport became Ninoy Aquino International Airport.

In 1995, work on the construction of the current Terminal 2 commenced, with the facility opening four years later. It was the primary home of legacy carrier, Philippine Airlines, until 2023 when its international services moved to Terminal 1. Terminal 3 followed in 2002, though it did not open until 2008 and only became fully operational in 2014. A 2018 terminal reorganisation plan was intended to free up capacity and improve the smooth running of the airport, but it took an Olympic cycle to implement, with the reshuffle finally happening in 2022-2023.

On September 14, 2024, the facility was privatised, with operational control passing to the New NAIA Infra Corp (NNIC) for an initial 15-year concession with an additional ten-year option, in which it "will embark on a transformative rehabilitation and upgrade", which its critics may argue is long overdue. Plans include increasing capacity to 62 million passengers annually and air traffic movements from 42 to 48 per hour. Further modernisation may include further terminal reassignments and infrastructure upgrades in the coming months and years, along with a link to the Metro Manila Subway at Terminal 3, which is undergoing construction. The airport remains the largest hub in the Philippines, and in 2023 the 15th busiest in Asia and 38th busiest in the world. During 2024 it processed an all-time high of 293,000 flights, significantly more than it was designed for.

"Plans include increasing capacity to 62 million passengers annually and air traffic movements from 42 to 48 per hour"

BELOW: *Pretty maids all in a row – four Philippines AirAsia Airbus A320s*

AirAsia
airasia
Now Everyone Can Fly
RP-C8993
RP-C8994
RP-C8189

ABOVE: *Philippine Airlines Airbus A320-214, RP-C8397 (c/n 5012), in the foreground, with Terminal 2 on the far side of runway 13/31*

Terminal archipelago

The four terminals are physically separated from each other, usually requiring clockwise or anticlockwise external transfers that can take up to an hour in congested traffic, which has proved to be an impediment to efficient flight connections over the years. The only exceptions are the Philippine Airlines airside transfer between Terminal 1 and 2, and the Cebu Pacific airside transfer between Terminal 3 and 4. With each terminal built in a different era, to different designs, with little planning for connective integration, their services, facilities and architectural standards vary greatly.

The roots of **Terminal 1** lie in the 1974 masterplan, with construction commencing in 1978 and the facility opening in March 1982. It was designed specifically for international traffic, with 14 gates served by jet bridges arranged around two piers, accessed from a central spine pier. Its original design capacity of 4.5 million passengers per annum was passed in 1991, and it has been extended to accommodate six million passengers, but is still plagued by capacity constraints. A renovation programme between January 2014 and May 2015 provided several upgrades and gave the place a much-needed facelift. Nineteen carriers currently use the terminal.

The current iteration of **Terminal 2** sits on the footprint of Federico Ilustre's original international terminal, at the southwest intersection of the runways. It was proposed in a 1989 review led by Aéroports de Paris (ADP), and facilitated by a grant from the French Government to support the architectural work, which ran from 1992 to 1994. The building work, funded by a Japanese government loan, began in December 1995 and it opened in September 1999. It is also known as the Centennial Terminal as the opening coincided with the centenary of Philippine independence from Spain. Originally built for domestic traffic, the design was modified to handle international flights, before reverting to domestic traffic in 2023. It is currently home to seven domestic operators and can handle ten million passengers per year. A 2014 expansion plan proposed a connection to Terminal 1, though this is yet to be implemented, it seems to have gained fresh momentum after the 2024 privatisation.

Terminal 3 is the largest terminal at Manila, but its inception and construction was dogged by disputes and delays. Following the ADP study into Terminal 2, a proposal was submitted by Asia's Emerging Dragon Corporation to build on the opposite side of runway 13/31. The bid was challenged and an alternative proposal from Paircargo and Fraport was selected for the construction and management of the terminal. Arrangements were made for the Philippine Government to become the operator after seven years had elapsed. Work commenced in August 1997, with the opening slated for 2002. During construction the government offered to buy Fraport's stake for $400m, but Philippine president at the time, Gloria Macapagal Arroyo, challenged the deal and the Philippine Supreme Court eventually ruled the earlier offer null and void. In December 2004, the government took control of the project after a $64m compensation

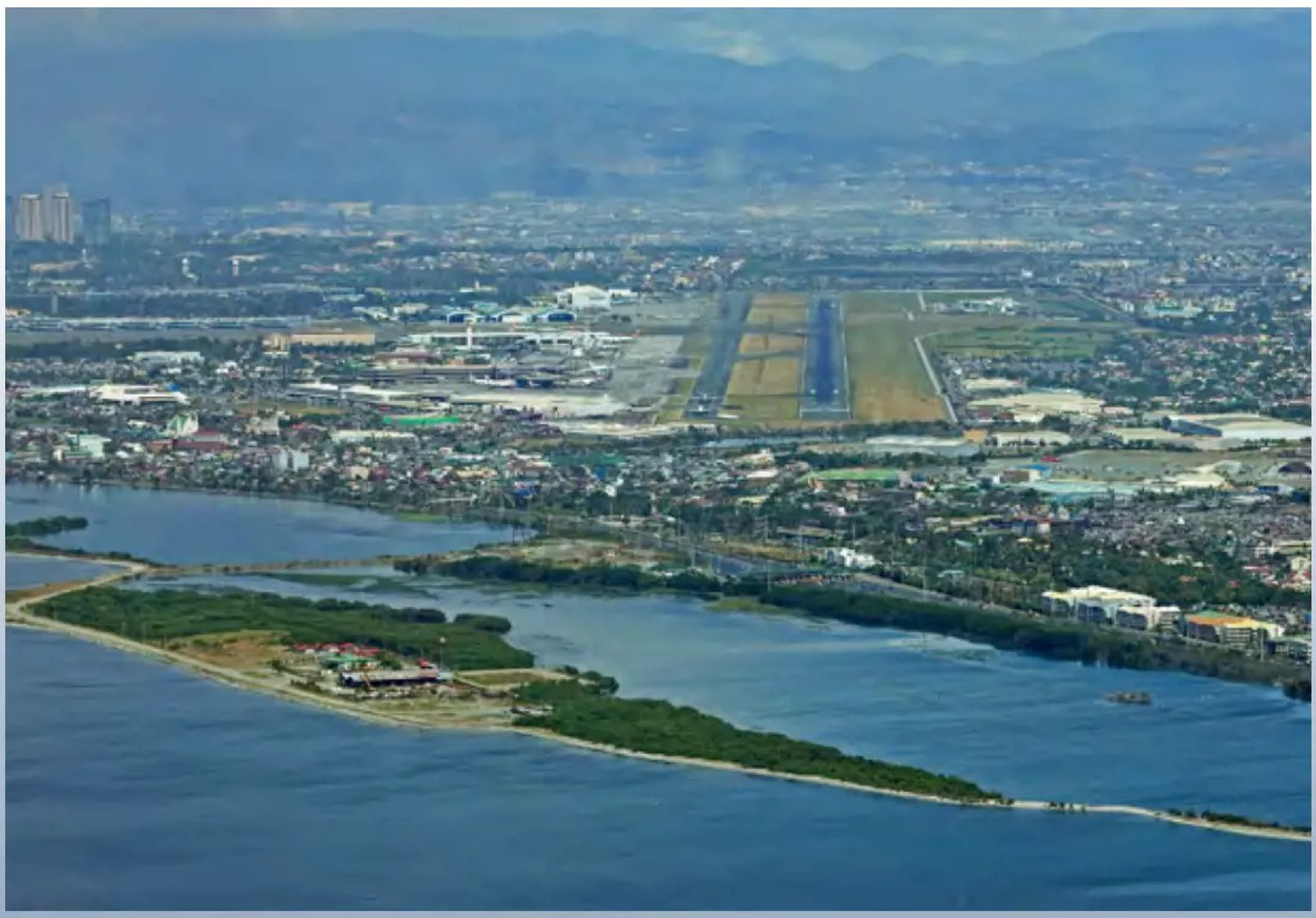
»

BELOW: *United Airlines Lockheed L-1011 TriStar 500, N512PA (c/n 193Y-1197), at Manila in August 1986. The aircraft was broken up in 2009*
AIRTEAMIMAGES.COM/ THE SAMBA COLLECTION

payment. After further construction delays it finally opened, albeit partially, in July 2008, as Cebu Pacific moved its flights in with PAL Express and Air Philippines following two days later. It became fully operational in 2014 and offers capacity for 13 million passengers, has 18 jet bridges, and is currently used by 22 airlines.

Terminal 4 has been open since 1948 and is the sole remaining commercial remnant of Nichols Field. It operates as a domestic facility, with capacity for three million passengers annually. With no jet bridges, passengers can 'enjoy' the old-fashioned experience of walking across the ramp to their aircraft. After privatisation it was temporarily closed for refurbishments, opening again in the spring of 2025.

ABOVE: *Cebu Pacific Airbus A320-214, RP-C4104 (c/n 6741), taxies while A320neo, RP-C3239 (c/n 8988), departs on a northerly track* AIRTEAMIMAGES.COM/ MARK ROURKE



LEFT: *Final approach to runway 06/24 highlights the facility's cramped urban geography* AVIATION IMAGE NETWORK/BAILEY

The road ahead

Unsurprisingly the list of current operators is dominated by Filipino beasts: legacy carrier Philippine Airlines operates 41 routes, with its regional subsidiary PAL Express offering 30 of its own. Low-cost operator Cebu Pacific plies services to 49 destinations, while Philippines AirAsia weighs in with 21 routes. Forty-five other commercial operators and a dozen cargo providers offer services to destinations around the globe. Over time the military aspects of the US Nichols Field evolved into the Philippine Villamor Air Base, which remains active, although its role is primarily confined to military helicopter and transport operations by the Philippine Air Force and

> "Being located on what was originally a green field site south of the city, which is now a dense, congested, and constricted urban area theoretically imposes geographical imitations on further development"

Manila's airports

Grace Park Airfield, also known as Manila North, opened in 1935 as a base for the Philippine Aerial Taxi Company (which became Philippine Air Lines in 1941, later Philippine Airlines) and operated domestic routes. It was located in Caloocan, one of 17 city districts making up Metropolitan Manila, on what is now Rizal Avenue Extension, between 2nd and 11th Avenue, although no trace of it remains in the modern urban sprawl.

Nielson Airport, located in the city district of Makati, was inaugurated in July 1937 as the primary gateway to Manila. It witnessed the departure of the inaugural Philippine Air Lines flight in March 1941, before commercial flights were halted in October that year and it became the headquarters of the US Far East Air Force. Services were restored in 1946, but the sloping terrain made it unsuitable for expansion, so the facility was decommissioned in 1948 and operations moved to Nichols Field. The terminal and control tower became known as Nielson Tower and survives to this day, close to the intersection of Ayala Avenue and Paseo de Roxas, or runways 12/30 and 07/25 as they used to be.

Clark International Airport is situated almost 60 miles northwest of the city centre on a former US military base and opened to commercial operations on June 16, 1996. The current passenger terminal was inaugurated in May 2022 with a capacity for up to eight million passengers per year. Currently it has no reliable transit systems, which means the journey from the city can sometimes take up to three hours. The facility has vast expansion plans.

New Manila International Airport is a coastal new-build facility located 20 miles northwest of the city centre with an initial capacity for 35 million passengers per year when it opens in 2028, rising to 100 million once complete. The huge project involves ongoing land reclamation, and will operate with at least four runways once complete, with a connection to the Manila Metro.

Sangley Point Airport is situated on the Cavite City peninsula in the Bay of Manila, 20 miles southwest of the capital and is in the process of being upgraded to a commercial facility. The existing domestic airport is served by a solitary 7,769ft runway and there are plans to construct up to four new runways plus new passenger terminals on reclaimed land, with an adjacent seaport. It is hoped that it will open in 2028 with an initial capacity for 25 million passengers per year.

presidential flights to domestic destinations around the country.

Being located on what was originally a green field site south of the city, which is now a dense, congested and constricted urban area, theoretically imposes geographical limitations on further development. And yet, despite the creation of new or extending facilities at Clark, Sangley and New Manila International Airport, expansion is what Ninoy Aquino International Airport intends to do.

Primary runway 06/24 intersects with the secondary runway 13/31 which currently handles less than 20% of the airport's commercial transport movements. The intersection requires extended spacing between traffic, which reduces movements per hour and increases the likelihood of airside congestion. Runway and taxiway upgrades have improved operational flexibility but not eliminated the problems. A 2014 plan to build a new runway to the south of 06/24, which would have impacted neighbouring homes and businesses beyond the airport perimeter, has not been implemented, though it was predicted to increase movements per hour by 50%. The issue of aircraft movements can be highlighted by the arrival of an Airbus A380 at the Lufthansa Technik Philippines MRO facility, on the airfield periphery. With taxiways providing insufficient wingtip-to-wingtip clearance, other aircraft had to be stopped while the giant Airbus manoeuvres.

Since privatisation in 2024, plans for a fifth terminal, between Terminal 1 and 3 have emerged, with construction scheduled over the next three to four years, and increasing capacity to 50 million passengers per year. Such plans have been raised before, but as a stopgap in readiness for the completion of new airports in Metropolitan Manila. This time, its raison d'être is to ease congestion.

With the city's other airports partly planned, reclaimed, built, or still to be connected to the rest of the transportation infrastructure, it seems that nobody in Manila is flying anywhere very quickly. To the casual observer, the problems at Ninoy Aquino International Airport are indicative of those the Japanese experienced at Osaka/Itami in the 1960s, which eventually led to the construction of Kansai International Airport. Yet the lack of a coherent Philippine masterplan means that like any good soap opera, this 'Thrilla in Manila' is likely set to continue for several more episodes to come. AW

BELOW: ***A scene from 2010 when Philippine Airlines was based in Terminal 2***
AIRTEAMIMAGES.COM/
COLIN PARKER

Philippines
RP-C3228
35
36
38

Airliner Deliveries

The latest commercial aircraft deliveries from manufacturers and lessors

est. 1956
12303
F-WWIY

Condor accepted Airbus A320neo, D-ANCY (c/n 12303), on November 29, 2024. Leased from Avolon, the jet first flew on November 12, and bears the carrier's striking red striped livery
V1IMAGES.COM/DIRK GROTHE

AirSial [PF/SIF 'Air Sial']

TC-TLI	B737-8FZ	29682	ex A4O-BM, dd 01.12.24 & entered service 11.12.24, lsd fr/op by Tailwind Als

FlyJinnah [9P/FJL 'Okaab']

AP-BPE	A320-214	5809	ex VP-CEG, dd 12.24 & entered service 21.12.24, lsd fr SMBC Aviation Capital

Lulutai Airlines [L8/TON]

ZK-MCO	ATR 72-212A (500)	628	ex F-WQKJ, dd 14.12.24 & entered service 16.12.24, lsd fr/op by Air Chathams

Air Arabia [G9/ABY 'Arabia)

A6-AQM	A320-214	7426	ex OE-IEF, dd 10.12.24, lsd fr BOC Aviation, (OE-IEF canx 09.12.24)
A6-AQN	A320-214	5675	ex VP-CEF, dd 13.12.24, lsd fr SMBC Aviation Capital

Emirates [EK/UAE 'Emirates']

A6-EFW	B777-F	68618	ff 12.10.24, dd 20.11.24
A6-EXA	A350-941	684	ex F-WZGA, ff 25.09.24, dd 25.11.24

Etihad Airways [EY/ETD 'Etihad']

A6-EJB	A320-251n	10372	ex VP-CFW, dd 12.24, lsd fr Aviation Capital Group, entered service 10.12.24

SolitAir

EI-HRB	B737-86N(BCF)	32686	ex OE-IWP, dd 01.12.24, lsd fr/op by ASL Airlines Ireland

Air China [CA/CCA 'Air China']

B-657D	ARJ21-700	10166	ff 20.11.24, dd 25.12.24
B-919Z	C919-100STD	23	ex B-002R, ff 14.12.24, dd 27.12.24

China Eastern Airlines [MU/CES 'China Eastern']

B-32K9	A320-251n	12264	ex F-WWBC, ff 22.10.24, dd 25.11.24
B-658E	C919-100STD	16	ex B-002J, ff 18.12.24, dd 31.12.24, has additional 'Shining Chinese Red (闪耀中国红)' decals

China Express Airlines [G5/HXA 'China Express']

B-32JW	A320-271n	12168	ex B-000L, ff 24.10.24, dd 27.11.24
B-657V	ARJ21-700	10169	ex B-099J, ff 07.11.24, dd 18.12.24

China Southern Airlines [CZ/CSN 'China Southern']

B-32JK	A321-253nx	12194	ex D-AZWS, ff 14.11.24, dd 29.11.24
B-32JL	A320-251n	12294	ex F-WWDH, ff 21.10.24, dd 08.11.24
B-32K1	A321-253nx	12420	ex B-000P, ff 04.11.24, dd 25.11.24
B-657R	ARJ21-700	10165	ex B-099M, ff 13.11.24, dd 11.12.24
B-657X	C919-100STD	22	ex B-002Q, ff 06.12.24, dd 19.12.24

Hainan Airlines [HU/CHH 'Hainan']

B-20E5	B737-8JP	41121	ex N476DM, dd 26.12.24 Jinan – Haikou, lsd fr China Aircraft Leasing Group
B-32H8	A320-251n	12313	ex F-WWIE, ff 09.11.24, dd 29.11.24, lsd fr CDB Leasing

Loong Air (China Zhejiang Airlines) [GJ/CDC 'Loong Air']

B-32JV	A320-251n	12421	ex B-000J, ff 17.10.24, dd 08.11.24, lsd fr AerCap

SF Airlines [O3/CSS 'Shun Feng']

N3071	B737-8Q8(BCF)	30718	ex 2-AECH, dd 03.12.24, cnvrtd to B737-8Q8(BCF) 11.24 at Jinan, (N3071 canx 06.12.24), rr B-227D

Sichuan Airlines [3U/CSC 'Sichuan']

B-32JQ	A320-271n	12317	ex F-WWIZ, ff 29.10.24, dd 22.11.24, lsd fr China Aircraft Leasing Group
B-32JR	A320-271n	12311	ex F-WWIT, ff 14.11.24, dd 28.11.24, lsd fr China Aircraft Leasing Group

Spring Airlines [9S/CQH 'Air Spring']

B-32HZ	A320-251n	12138	ex B-007R, ff 14.08.24, dd 26.11.24
B-32J0	A320-251n	12326	ex B-007Y, ff 30.08.24, dd 27.11.24

HK Express [UO/HKE 'Hongkong Shuttle']

B-KKJ	A321-251nx	12044	ex F-WWSK, ff 17.09.24, dd 01.11.24 to Cathay Pacific Aircraft Services Ltd
B-KKL	A321-251nx	12083	ex F-WWSN, ff 11.10.24, dd 15.11.24 to Cathay Pacific Aircraft Services Ltd

Hong Kong Airlines [HX/CRK 'Bauhina']

B-LHR	A330-343E	1840	ex B-1045, dd 15.12.24 Haikou – Hong Kong, in special 'Ta Kung Pao (大公報)' colours
B-LPS	A320-232	4804	ex VP-CHG, dd 06.12.24 & entered service 20.12.24, to be lsd fr CDB Aviation
B-LPV	A320-214	5172	ex B-6943, dd 10.12.24 & entered service 20.12.24, lsd fr Yangtze River International Leasing
B-LPW	A321-231	6853	ex B-8188, dd 18.12.24, lsd fr SMBC Aviation Capital
B-LPX	A321-231	6863	ex B-8189, dd 18.12.24, lsd fr SMBC Aviation Capital
B-LPY	A320-232	5156	ex B-6929, dd 29.12.24, lsd fr Haitong UniTrust

China Airlines [CI/CAL 'Dynasty']

B-18118	A321-271nx	12078	ex D-AZWB, ff 08.11.24, dd 25.11.24

Air Canada [AC/ACA 'Air Canada']

C-FDUW	A220-300	55306	ff 22.10.24, dd 13.11.24 & reg'd 03.07.24, fleet # '134'
C-GYFY	A321-211	5377	ex B-16203, dd 23.12.23 & reg'd 31.12.24, lsd fr Aviation Capital Group, fleet # '466'
C-GYGU	A321-211	5328	ex B-16202, reg'd 12.12.24, entered service 16.12.24

Air Transat [TS/TSC 'Transat']

C-GEXI	A320-214	3762	ex OK-IOO, reg'd 12.12.24, lsd fr SmartWings

Cargojet Airways [W8/CJT 'Cargojet']

N532LA	B767-316F	30780	ex N68077, dd 09.12.24, bf Jetran, parked Waco

Conair Group [FGD 'Fireguard']

C-	DHC-8 402	4216	ex N881WM, purch 19.12.24, N881WM canx 20.12.24, std Halifax
C-	DHC-8 402	4221	ex N882WM, purch 19.12.24, N881WM canx same day, std Halifax

Killarney Air Services

C-GOXI	DHC-2 Mk.I	427	ex N378V, reg'd 24.12.24

Pascan Aviation [psc 'Pascan']

C-FHMC	Saab 340B	340B-327	ex N327JS, reg'd 02.12.24, lsd fr Jetsream Aviation Capital

Porter Airlines [PD/POE 'Porter']

C-GKXW	ERJ190-400	19020155	ex PR-EIC, reg'd 31.12.24

Sunwing Airlines [WG/SWG 'Sunwing']

C-FKVU	B737-86N	38025	ex OK-TVU, reg'd 11.12.24, lsd fr SmartWings
C-FLWK	B737-8K5	37239	ex G-TAWK, reg'd 09.12.24 & entered service 14.12.24, lsd fr TUI Airways
OK-TSE	B737-81D	39437	ex C-GKZE, dd 04.12.24 & entered service 05.12.24, lsd fr/op by SmartWings
OK-TST	B737-86N	37884	ex EI-FHG, dd 07.12.24 & entered service 08.12.24, lsd fr/op by SmartWIngs
OK-TVJ	B737-8Q8	29351	ex C-FFVJ, dd 01.12.24 & entered service 02.12.24, lsd fr/op by SmartWings
OK-TVW	B737-86Q	30295	ex HB-IIR, dd 20.12.24 & entered service 21.12.24, lsd fr/op by SmartWings

WestJet [WS/WJE 'Westjet']

C-GXWJ	B737-8	60555	ff 24.09.24, dd 26.11.24 & reg'd same day, lsd fr BOC Aviation, fleet # '331'

JetSMART [JA/JAT 'Rocksmart']

CC-DIP	A320-271n	12039	ex F-WZMO, ff 16.10.24, dd 14.11.24, st GOAL & lsd back, reg'd same day to GOAL Jamestown Aviation Ltd, named 'Siete Colores'

Air Arabia Maroc [3O/MAC 'Arabia Maroc']

LZ-EAG	A321-111	1144	ex LY-BMD, dd 12.12.24, lsd fr/op by Electra Airways

Royal Air Maroc [AT/RAM 'Roylair Maroc']

CN-RHA	B787-9	64980	ex N2004D, ff 02.07.21, dd 23.11.24

TAP Air Portugal [TP/TAP 'Air Portugal']

CS-TVO	A320-251n	12211	ex F-WWIS, ff 04.11.24, dd 22.12.24

Condor [DE/CFG 'Condor']

D-ANCY	A320-271n	12303	ex F-WWIY, ff 12.11.24, dd 29.11.24, lsd fr Avolon Aerospace, 'red' stripes

Eurowings [EW/EWG 'Eurowings']

9H-AMK	A320-232	3562	ex HA-LWF, dd 21.12.24, entered service 22.12.24, lsd fr/op by Avion Express Malta
9H-MLO	A320-214	5653	ex EI-GSZ, dd 19.12.24 & entered service 20.12.24, lsd fr/op by Avion Express Malta

German Airways [ZQ/GER 'German Eagle']

D-AMWO	ERJ190-100AR	19000165	ret fr KLM Cityhopper lease & ferried Bremen – Cologne 03.12.24

Lufthansa [LH/DLH 'Lufthansa']

D-AIXX	A350-941	672	ex F-WZGW, ff 16.09.24, dd 26.11.24, named 'Osnabrück'

Fiji Link [FJ/FJA 'Link Fiji']

DQ-FLB	ATR 72-212A (600)	1707	ex F-WWEG, ff 16.12.24, dd 26.12.24, lsd fr Nordic Aviation Capital
DQ-FLC	ATR 72-212A (600)	1711	ex F-WWEK, ff 26.12.24, dd 02.01.25

Air Nostrum [YW/ANE 'Nostrum Air']

EC-NPS	CRJ.200LR	7200	ex ZP-CRT, ret fr Paranair lease, restored to EC- register 11.24

Binter Canarias [NT/IBB 'Binter']

EC-OKB	ERJ190-400	19020163	ex PR-EID, dd 28.12.24, named 'Cantabria'

LEVEL [LL/LVL]

EC-OHY	A330-243	1319	ex OE-LTE, dd 22.10.24 & entered service 14.12.24

Key to Abbreviations

a/c	aircraft
als	airlines
awys	airways
bf	bought from
b/u	broken up/scrapped
canx	cancelled
cls	colours
cn	manufacturer's construction/serial number
cnvrtd	converted
dbf	destroyed by fire
dbr	damaged beyond repair
dd	delivery date
ex	previous reg'n
ff	first flight
frtr	freighter
lrf	last revenue flight
lsd fr	leased from
lsd to	leased to
msn	see cn
ntu	not taken up
oo	on order
op	operated
pax	passenger
pwfu	permanently withdrawn from use
reg'd	registered
reg'n	registration
ret fr	returned from
ret to	returned to
rr	re-registered
rts	return to service
sb	sold by
scr	scrapped/broken up
st	sold to
std	stored
tba	to be advised
unk	unknown
wfu	withdrawn from use
w/o	written off/destroyed

Vueling [VY/VLG ‘Vueling’]			
EC-NUO	A320-214	5232	ex OE-IPA, dd 23.12.24 Ostrava – Castellón de la Plana for temp storage, lsd fr AerCap
World2Fly [2W/WFL ‘Blue World’]			
EC-NZF	A350-941	613	ret fr Corendon Dutch Airlines lease 05.12.24
ASL Airlines Ireland [5H/ABR ‘Contract’]			
EI-HRE	B737-86J(F)	30499	ex N471BS, reg’d, lsd fr/op for DHL, (N471BS canx 05.12.24)
Cityjet [WX/BCY ‘City Ireland’]			
EI-HSA	CRJ.900LR	15080	ex OE-LLA, dd 18.12.24
Mahan Air [W5/IRM ‘Mahan Air’]			
EP-	A340-642	765	ex 5N-AAM, dd 11.24, parked Tehran IKA
EP-	B737-36N	28557	ex 5N-YSM, dd 11.24, parked Tehran THR
Pars Air [PRS ‘Pars Sky’]			
EP-PAO	B737-448	25736	ex N7378C, dd 12.24
Marabu Airlines [DI/MBU ‘Marabu’]			
ES-MBF	A320-271n	8440	ex VT-IVV, dd 11.12.24, lsd fr Jackson Square Aviation
SmartLynx Estonia [MYX ‘Tallinn Cat’]			
ES-SAX	A320-214	3954	ret fr AJet lease
Ethiopian Airlines [ET/ETH ‘Ethiopian’]			
ET-BAW	A350-1041	691	ex F-WWXL, ff 14.10.24, dd 04.10.24
ET-BBE	B767-300F	67023	ex C-GXHI, dd 05.12.24
ET-BBF	B767-300F	67024	ex C-GXHM, dd 13.12.24
ET-BBG	B777-300ER	65420	ex N874BC, dd 10.12.24, (N874BC canx 05.12.24)
New Way Cargo [NWY ‘New Way Cargo’]			
EX-76023	Il-76TD	1033417541	ex UK-76376, reg’d 25.11.24
Air France [AF/AFR ‘Air France’]			
F-HPNO	A220-300	55305	ex C-FOVK, ff 24.10.24, dd 07.11.24, st SBI Leasing Services Co Ltd & reg’d 14.11.24, named ‘Bastia’
F-HPNP	A220-300	55327	ex C-FPBQ, ff 17.12.24, reg’d 24.12.24
Amelia International [8R/AIA ‘Amelia’]			
F-HDRG	A320-214	2950	ret fr Air Algérie lease
Transavia France [TO/TVF ‘French Soleil’]			
F-HXSI	A320-252n	12153	ex F-WWBJ, ff 21.10.24, dd 20.11.24, lsd fr AerCap & reg’d to AerCap Ireland Ltd 21.11.24
Air Tahiti [VT/VTA ‘Air Tahiti’]			
F-OPFS	ATR 72-212A (600)	1678	ex F-WWEZ, ff 09.12.24, dd 24.12.24 & reg’d to SNC Kaveka Bail same day
Ascend Airways [SYG ‘Synergy’]			
G-HAGI	B737-8	42828	ex 9H-ERI, reg’d 23.12.24, lsd fr SKY Leasing
Jet2.com [LS/EXS ‘Channex’]			
G-HLYH	A321-251nx	12295	ex D-AZWX, ff 19.11.24, dd 28.11.24, lsd fr CDB Leasing & reg’d same day to Jet2.com Ltd
Swiss International Air Lines [LX/SWR ‘Swiss’]			
HB-JDH	A320-271n	12338	ex F-WWDC, ff 14.10.24, dd 13.11.24 & reg’d 11.11.24 to Bank of America Leasing Ireland Co Ltd, named ‘Spiez’
Air Premia [YP/APZ ‘Air Premia’]			
HL8701	B787-9	37307	ex VP-CVD, dd 18.12.24
Asiana Airlines [OZ/AAR ‘Asiana’]			
HL8584	A321-251nx	12033	ex D-AYAS, ff 01.10.24, dd 26.11.24 & reg’d same day
Jin Air [LJ/JNA ‘Jin Air’]			
HL7216	B737-8	63442	ex N4022T, dd 19.11.24, lsd fr Korean Air
Korean Air [KE/KAL ‘Korean’]			
HL8589	A321-272nx	12021	ex F-WWSJ, ff 18.10.24, dd 14.11.24 & reg’d same day
Copa Airlines [CM/CMP ‘Copa’]			
HP-9802CMP	B737-8	62702	ex N4022T, ff 30.09.24, dd 27.11.24
Thai AirAsia [FD/AIQ ‘Thai Asia’]			
HS-EAE	A321-251nx	12135	ex D-AZWM, ff 23.10.24, dd 07.11.24, lsd fr AerCap
Thai Lion Air [SL/TLM ‘Mentari’]			
HS-LGR	B737-8GP	39870	ex PK-LPL, dd 20.12.24, lsd fr SMBC Aviation Capital
HS-LVO	B737-9LPER	41843	ex PK-LST, dd 28.12.24, lsd fr Aergo Capital
HS-LVQ	B737-9GPER	37283	ex PK-LHT, dd 14.12.24, lsd fr AerCap
Thai Vietjet Air [VZ/TVJ ‘Thaiviet Jet’]			
LY-MLI	A320-232	3771	ex OE-LIC, dd 20.12.24 & entered service 28.12.24, lsd fr/op by Avion Express
LY-NVM	A320-232	4628	ex LY-LGD, dd 19.12.24 & entered service 28.12.24, lsd fr/op by Avion Express
flyadeal [F3/FAD ‘Adeal’]			
HZ-FBJ	A320-251n	12301	ex F-WWTO, ff 08.10.24, dd 04.11.24 to Saudia, named ‘Al-Shuja’
Manasik Aviation [MNM ‘Manasik’]			
HZ-MNS	A340-313	921	ex YR-LRB, dd 02.12.24
Saudia [SV/SVA ‘Saudi’]			
HZ-ASAK	A321-251nx	12314	ex D-AZWP, ff 05.11.24, dd 18.11.24
Aeroitalia [XZ/AEZ ‘Aeroitalia’]			
9H-MMU	ATR 72-212A (600)	1172	ex YR-ACA, dd 12.24, entered service 19.12.24, lsd fr Aergo Capital
9H-RFD	ATR 72-212A (600)	1196	ex YR-ACB, dd 12.24, entered service 19.12.24, lsd fr Aergo Capital
Air Dolomiti [EN/DLA ‘Dolomiti’]			
I-JENG	ERJ190-100LR	19000341	ex D-AECE, dd 12.24
ITA Airways [AZ/ITY ‘Itarrow’]			
EI-MVE	A220-100	50080	ex C-FOVL, ff 21.11.24, dd 29.11.24, lsd fr Air Lease Corp & reg’d same day to Aurora Financing 3 DAC, named ‘Dario Hubner’
Starflyer [7G/SFJ ‘Starflyer’]			
JA29MC	A320-251n	12233	ex F-WWBE, ff 01.10.24, dd 04.11.24 & reg’d 06.11.24, lsd fr SMBC Aviation Capital
Toki Air [BV/TOK ‘Toki Air’]			
JA03QQ	ATR 42-500 (600)	1618	ex F-WNUJ, ff 15.10.24 as F-WWLN, dd 02.12.24
Flybondi [FO/FBZ ‘Bondi’]			
LY-MLG	A320-232	2863	ex OE-ILP, dd 03.12.24 & entered service 08.12.24, lsd fr/op by Avion Express
GetJet Airlines [GW/GJT ‘Getjet’]			
LY-WIZ	A320-232	3430	ret fr Air Serbia lease
Bulgaria Air [FB/LZB ‘Flying Bulgaria’]			
LZ-BUR	ERJ190-100SR	19000551	ret fr Air Serbia lease
Electra Airways [EAF ‘Electra’]			
LZ-EAD	A320-232	2717	ret fr Air Arabia Maroc lease
21 Air [2I/CSB ‘Cargo South’]			
N1181A	B767-3Y0ER(F)	26206	ex N505CS, dd 12.12.24, lsd fr Amazon.com Services & op for Amazon Air
N1409A	B767-306ER(BCF)	27960	ex 2-QMEF, dd 02.12.24, lsd fr Amazon.com Services & op for Amazon Air
Allegiant Air [G4/AAY ‘Allegiant’]			
N813NV	B737-8200	68004	ex N4022S, N4022T, ff 31.05.24, dd 29.11.24 & reg’d 19.12.24 to Sunrise Asset Management LLC
N814NV	B737-8200	68005	ex N4022T, ff 19.09.24, dd 21.11.24 & reg’d 12.12.24 to Sunrise Asset Management LLC

We welcome any feedback on this listing

(The listing is alphabetical with reference to the registration of the country of origin. Columns indicate the registration, type, construction number and notes.)

HL7216
JINAIR.com
A

South Korean low-cost airline Jin Air took delivery of Boeing 737 MAX 8, HL7216 (c/n 63442), on November 19, 2024. The aircraft is leased from parent company Korean Air
JOE G WALKER

Airliner Deliveries

The latest commercial aircraft deliveries from manufacturers and lessors

American Airlines [AA/AL 'American']

N356TX	B737-8	44494	ex N40225, N4022T, ff 29.08.24, dd 21.11.24 & reg'd same day, fleet # '3TX'
N470AN	A321-253nx	12260	ex F-WZMN, ff 18.10.24, dd 12.11.24 & reg'd 14.11.24, fleet # '470'
N471AN	A321-253nx	12262	ex F-WZMQ, ff 05.11.24, dd 14.11.24 & reg'd 18.11.24, fleet # '471'

Bering Air [8E/BRG 'Bering Air']

N701BA	Cessna 408	408-0036	ff 31.10.24, dd 17.12.24

Blue Waters Air Charters

N909VL	BN2A-26	895	ex HP-76JL, reg'd 04.12.24

Breeze Airways [MX/MXY 'Moxy']

N240BZ	A220-300	55300	ex C-GPQZ, ff 27.09.24, dd 12.11.24 & reg'd 13.11.24 to Bank of Utah Trustee
N243BZ	A220-300	55313	ex C-GPWC, ff 08.10.24, dd 19.11.24 & reg'd 20.11.24 to Bank of Utah Trustee

Contour Aviation [LF/VTE 'Volunteer']

N846AE	Emb-135KL	145692	ex PT-SFY, bf Regional One 22.11.24 & reg'd 11.12.24 to Corporate Flight Management Inc, parked Sioux City

Delta Air Lines [DL/DAL 'Delta']

N327DU	A220-300	55307	ex C-GPCA, ff 28.10.24, dd 12.11.24 & reg'd 13.11.24, fleet # '8327'
N525DN	A350-941	687	ex F-WWIW, ff 23.10.24, dd 21.11.24 & reg'd same day, fleet # '3525'
N552DT	A321-271nx	11874	ex D-AZYW, ff 30.10.24, dd 18.11.24 & reg'd same day, fleet # '5052'

Envoy Air (American Eagle) [MQ/ENY 'Envoy']

N324ES	ERJ170-200LR	17000979	ex PR-EIA, reg'd 05.12.24 to American Airlines
N325DM	ERJ170-200LR	17000981	ex PR-EIG, ff 04.12.24, reg'd 16.12.24 to American Airlines
N328DS	ERJ170-200LR	17000984	ex PR-EIQ, reg'd 27.12.24 to American Airlines

FedEx Feeder

N769FX	Cessna 408	408-0030	reg'd 06.12.24
N770FX	Cessna 408	408-0031	ff 04.04.24, dd 20.12.24, to be op by Corporate Air
N774FX	Cessna 408	408-0037	reg'd 09.12.24
N775FX	Cessna 408	408-0038	ff 06.11.24, dd 13.12.24, to be op by Corporate Air
N776FX	Cessna 408	408-0040	ff 11.12.24, dd 20.12.24, to be op by Corporate Air

Frontier Airlines [F9/FFT 'Frontier Flight']

N656FR	A321-271nx	12261	ex F-WZMM, ff 22.10.24, dd 12.11.24 & reg'd 13.11.24 to Bank of Utah Trustee, named 'Quin the Great Curassow'

jetBlue Airways [B6/JBU 'Jet Blue']

N3240J	A220-300	55314	ex C-GPVD, ff 01.11.24, dd 25.11.24 & reg'd 26.11.24, named 'History Has Its Eyes On Blue'
N3241J	A220-300	55315	ex C-FOWF, ff 20.11.24, dd 26.11.24 & reg'd same day, named 'Taming Of The Blue'

Kalitta Air [K4/CKS 'Connie']

N794CK	B777-F1H	35609	ex A6-EFI, lsd fr DAE Capital & reg'd 02.01.25 to DAE 35609 Trust

Key Lime Air [KG/LYM 'Key Lime']

N832HK	Emb-145LR	145771	ex PT-SMB, dd 31.12.24

Martinaire [MRA 'Martex']

N569WA	Cessna 208B	208B0569	ex C-FZLK, reg'd 10.12.24

National Airlines [N8/NCR 'National Cargo']

N974AV	A330-243	1208	ex PR-OBS, reg'd 18.12.24 to AC SPE 14 LLC, parked Orlando
N775YX	ERJ170-200LR	17000978	ex PR-EHZ, reg'd 04.12.24, United Express colours
N776YX	ERJ170-200LR	17000982	ex PR-EIH, reg'd 20.12.24, United Express colours

SkyWest Airlines [OO/SKW 'Skywest']

N530GJ	CRJ.550	10216	ex N151GJ, reg'd 14.12.24, parked South Bend
N574GJ	CRJ.550	10259	ex N518LR, bf United, parked Oklahoma City
N626SY	ERJ170-200LL	17000974	ex PR-EHT, ff 30.09.24, reg'd 05.12.24, United Express colours
N627SY	ERJ170-200LL	17000980	ex PR-EIE, reg'd 12.12.24, United Express colours
N628SY	ERJ170-200LL	17000983	ex PR-EIP, reg'd 23.12.24, in United Express colours
N629SY	ERJ170-200LL	17000986	ex PR-EIR, ff 20.12.24, reg'd 30.12.24, United Express colours

SkyWest Charter [CW 'Charter West']

N442SW	CRJ.200LR	7609	ex C-FMMQ, dd 29.12.24

Southern Airways Express [9X/FDY 'Friendly']

N539SA	Cessna 208B Grand Caravan EX	208B5822	dd 25.11.24 & reg'd 13.12.24
N576SA	Cessna 208B Grand Caravan EX	208B5824	dd 25.11.24 & reg'd 13.12.24

Spirit Airlines [NK/NKS 'Spirit Wing']

N740NK	A321-271nx	12055	ex F-WZMP, ff 21.10.24, dd 05.12.24, lsd fr Air Lease Corp & reg'd same day to ALC A321 62024 LLC, fleet # '6740'
N741NK	A321-271nx	12335	ex F-WZMW, ff 22.11.24, dd 27.11.24, lsd fr Air Lease Corp & reg'd 29.11.24 to ALC A321 82042 LLC, fleet # '6741'

Sun Country Airlines [SY/SCX 'Sun Country']

N901SY	B737-91MER	40069	ex A4O-BI, reg'd 11.12.24

United Airlines [UA/UAL 'United']

N14517	A321-271nx	12101	ex F-WZMX, ff 19.07.24, dd 01.11.24 & reg'd 05.11.24, fleet # '4517'
N14520	A321-271nx	12103	ex F-WZMZ, ff 23.07.24, dd 05.11.24 & reg'd 07.11.24, fleet # '4520'
N14523	A321-271nx	11966	ex F-WWSG, ff 25.07.24, dd 13.11.24 & reg'd same day, fleet # '4523'
N17358	B737-8	67628	ex N4022H, N4022T, ff 07.10.24, dd 25.11.24 & reg'd same day, fleet # '7358'
N24508	A321-271nx	11706	ex F-WWAV, ff 25.09.24, dd 12.11.24 & reg'd same day, fleet # '4508'
N24510	A321-271nx	11814	ex F-WWSE, ff 04.09.24, dd 14.11.24 & reg'd same day, fleet # '4510'
N24519	A321-271nx	11965	ex D-AZAG, ff 17.09.24, dd 08.11.24 & reg'd same day, fleet # '4519'
N24526	A321-271nx	12131	ex D-AZWR, ff 29.10.24, dd 12.11.24 & reg'd same day, fleet # '4526'
N24988	B787-9	37449	ff 20.10.24, dd 05.11.24 & reg'd 07.11.24, fleet # '0988', is special 'The Future is SAF' colours
N44522	A321-271nx	12204	ex F-WZMF, ff 29.10.24, dd 26.11.24 & reg'd 27.11.24, fleet # '4522'
N54525	A321-271nx	12208	ex F-WZMK, ff 16.09.24, dd 26.11.24 & reg'd 27.11.24, fleet # '4525'
N77588	B737-9	43446	ex N4022T, ff 09.09.24, dd 06.11.24 & reg'd same day to UMB Bank NA Trustee, fleet # '7588'

JetSMART Perú [JZ/JAP 'Red Smart']

CC-DII	A320-271n	11765	ex D-AUBU, dd 20.12.24, lsd fr BOC Aviation

SmartWings [QS/TVS 'Sky Travel']

OK-EYA	A220-300	55311	ex C-FOVP, ff 31.10.24, dd 15.11.24, in CSA Czech Airlines colours

TUIfly Belgium [TB/JAF 'Beauty']

OO-TUJ	B737-8K5	39923	ex D-ATUJ, reg'd 25.11.24, lsd fr SMBC Aviation Capital

DAT [DX/DTR 'Danish']

OY-JRF	ATR 42-500	807	ex F-OIXE, reg'd 20.12.24

Maersk Air Cargo [DJ/SRR 'Whitestar']

OY-MAD	B777-F	67866	ff 25.08.26, dd 26.11.24 & reg'd same day, named 'Maersk Nightingale'

Corendon Dutch Airlines [CD/CND 'Dutch Corendon']

EC-NTB	A350-941	559	ex F-WZFR, dd 05.12.24 & entered service 06.12.24, lsd fr/op by World2Fly

KLM Cityhoper [WA/KLC 'City']

D-APRI	ERJ190-100SR	19000178	ex G-LCYX, dd 01.12.24 & entered service same day, lsd fr/op by German Airways

BBN Airlines Indonesia [7B/BBL 'Iron Bird']

PK-BBK	B737-9GPER	35717	ex 2-IBAZ, dd 19.11.24 & entered service 04.12.24, lsd fr Alterna Capital Partners

Garuda Indonesia [GA/GIA 'Indonesia']

PK-GUG	B737-8U3	30142	ex 2-NNOO, dd 28.12.24, lsd fr DAE Capital

Sriwijaya Air [SJ/SJY 'Sriwijaya']

PK-BBG	B737-86N	39390	ex VP-CAB, dd 23.12.24, lsd fr/op by BBN Airlines Indonesia

Azul Linhas Aéreas [AD/AZU 'Azul']

PS-ADA	ERJ190-400	19020160	dd 13.12.24 & reg'd 19.12.24 to Bank of Utah, named 'Azul do Cerrado'
PS-ADC	ERJ190-400	19020162	dd 26.12.24 & reg'd 27.12.24 to Bank of Utah
PS-ADD	ERJ190-400	19020164	dd 26.12.24 & reg'd 27.12.24 to Bank of Utah, named 'Onde os Sonhos Voam'
PS-AET	ERJ190-400	19020073	ex PR-EEH, dd 13.12.24 & reg'd 29.12.24 to Bank of Utah, named 'Sonho Azul,'
PS-AEZ	ERJ190-400	19020157	dd 20.12.24 & reg'd 23.12.24 to Bank of Utah, named 'Meu E2 AZUL'
PS-KSA	ERJ190-400	19020149	ex PR-EHG, ff 04.12.24, dd 27.12.24, lsd fr Azorra Aviation

GOL Linhas Aéreas [G3/GLO 'Gol']

PS-GFG	B737-8Q8(BCF)	30696	ex 2-GTQB, dd 31.12.24, lsd fr Babcock & Browm, & reg'd 23.12.24 to UMBF Trust & Agency Services (Ireland) Ltd

LOT Polish Airlines [LO/LOT 'Pollot']

SP-LVP	B737-8	66369	ex N4022T, ff 24.09.24, dd 27.11.24
YR-HLA	B737-8HC	36529	ex TC-TJT, dd 21.12.24, entered service same day, lsd fr/op by Hellojets

Aerojet Aviation

7Q-SAZ	DC-9 14	45706	ex 5Y-SAZ, dd 12.24, lsd fr Flytech Aviation Group

Air Cairo [SM/MSC 'Air Cairo']

SU-BVM	A320-251n	12273	ex F-WWTQ, ff 31.10.24, dd 13.11.24, lsd fr Accipter

AJet [VF/TKJ 'Anatolia']

TC-EIA	A320-233	5068	ex N685TA, dd 06.12.24, lsd fr Fortress Aviation, delivered using AJet call sign in Turkish Airlines colours
TC-LBK	A320-271n	9332	ex 2-TWJO, dd 31.12.24, lsd fr BOC Aviation

Pegasus Airlines [PC/PGT 'Sunturk']

TC-RFD	A321-251nx	12008	ex F-WWAD, ff 29.08.24, dd 01.11.24, named 'Ashen'
TC-RFF	A321-251nx	12071	ex F-WWSM, ff 09.10.24, dd 29.11.24, named 'Rümeysa'
TC-RFI	A321-251nx	12047	ex D-AZWG, ff 09.10.24, dd 07.11.24, named 'Beren']
TC-RFJ	A321-251nx	12095	ex F-WWSO, ff 24.10.24, dd 27.11.24, named 'Elif Züleyha'

Turkish Airlines [TK/THY 'Turkish']

TC-LBD	A321-231	6294	ex OE-IZX, dd 04.12.24, lsd fr Song Thrush Aviation
TC-LPL	A321-271nx	12075	ex D-AZAE, ff 22.10.24, dd 07.11.24, lsd fr SMBC Aviation Capital
TC-LPM	A321-271nx	12065	ex D-AZXW, ff 08.11.24, dd 27.11.24, lsd fr SMBC Aviation Capital

Air Atlanta Icelandic [CC/ABD 'Atlanta']

TF-AKG	B747-409F	33732	ex B-18716, dd 13.12.24, in basic China Airlines colours with Network titles & tail logo
TF-TFM	B777-212ER	28513	ex CS-TFM, reg'd 12.24, parked Lourdes since 11.07.22

Icelandair [FI/ICE 'Iceair']

TF-IAA	A321-271nx	12213	ex D-AZXZ, ff 19.11.24, dd 26.11.24, lsd fr SMBC Aviation Capital, named 'Esja'

Tunisair [TU/TAR 'Tunisair']

LY-MLF	A320-232	2828	ex SX-DGN, dd 22.12.24 Rijeka – Tunis & entered service same day, lsd fr/op by Avion Express

Centrum Air

UK32073	A320-214	2663	ex 5B-DDL, dd 05.12.24, lsd fr AerCap

Fly Khiva [2U/FKH 'Fly Khiva']

TF-FIX	B757-308	29434	ex N60659, dd 01.12.24 & entered service 05.12.24, lsd fr/op by Icelandair
TF-ISX	B757-3E7	30179	ex 4X-BAW, dd 04.12.24 & entered service 09.12.24, lsd fr/op by Icelandair

My Freighter [C6/MFX 'Whitebird']

UK67019	B767-330ER(F)	26987	ex N447CM, dd 11.12.24, lsd fr Cargo Aircraft Management, (N447CM canx 09.12.24)

Airnorth [TL/ANO 'Topend']

VH-A2A	ERJ190-100AR	19000020	ex N197JB, reg'd 04.12.24, lsd fr Alliance Airlines

Alliance Airlines [QQ/UTY 'Unity']

VH-A2C	ERJ190-100AR	19000023	ex N203JB, reg'd 19.12.24

Hinterland Aviation

VH-KNQ	Cessna 208B	208B2193	ex N2028N, reg'd 16.12.24, lsd fr JNP Enterprises

Jetstar Airways [JQ/JST 'Jetstar']

VH-A5A	A320-271n	12328	ex F-WWTR, ff 29.10.24, dd 20.11.24 to Qantas Airways

National Jet Systems (QantasLink) [NC/NJS 'National Jet']

VH-X4E	A220-300	55312	ex C-FOVX, ff 15.11.24, dd 29.11.24 to Qantas Airways, named 'Tasmanian Devil'

Skytrans Airlines [QN/SKP 'Skytrans']

VH-L7A	A319-112	1779	ex LY-FAB, reg'd 20.12.24 to UAB – AviaAM B02

Sunstate Airlines (QantasLink) [SSQ 'Sunstate']

VH-84A	DHC-8 402	4447	ex C-FENY, reg'd 12.12.24 to Qantas Airways Ltd, named 'Roma'

Virgin Australia Airlines [VA/VOZ 'Velocity']

VH-RQP	B737-8FE	37822	ex VH-BZG, dd 05.12.24, lsd fr Aero Capital Solutions & reg'd 09.12.24

Bamboo Airways [QH/BAV 'Bamboo']

JU-1410	A320-214	4692	ex VQ-BKS, dd 05.11.24 & entered service 10.11.24, lsd fr/op by Mongolian Airways

Key to Abbreviations

a/c	aircraft
als	airlines
awys	airways
bf	bought from
b/u	broken up/scrapped
canx	cancelled
cls	colours
cn	manufacturer's construction/serial number
cnvrtd	converted
dbf	destroyed by fire
dbr	damaged beyond repair
dd	delivery date
ex	previous reg'n
ff	first flight
frtr	freighter
lrf	last revenue flight
lsd fr	leased from
lsd to	leased to
msn	see cn
ntu	not taken up
oo	on order
op	operated
pax	passenger
pwfu	permanently withdrawn from use
reg'd	registered
reg'n	registration
ret fr	returned from
ret to	returned to
rr	re-registered
rts	return to service
sb	sold by
scr	scrapped/broken up
st	sold to
std	stored
tba	to be advised
unk	unknown
wfu	withdrawn from use
w/o	written off/destroyed

YR-FIA	A320-232	3524	ex ER-00004, dd 07.12.24 & entered service 13.12.24, lsd fr/op by FLYONE Romania
Vietjet Air [VJ/VJC 'Vietjet Air']			
VN-A543	A321-271nx	12241	ex D-AZAM, ff 12.11.24, dd 26.11.24
VN-A546	A321-271nx	12186	ex D-AZXI, ff 07.1124, dd 22.11.24
Afcom Cargo			
VT-AFC	B737-89L(F)	30160	ex N360FL, dd 26.10.23 Jinan – Hyderabad & parked, lsd fr Flight Lease
VT-AFO	B737-86N(BCF)	28617	ex N671FL, dd 07.09.23, lsd fr Flight Lease
Air India Express [IX/AXB 'Express India'],			
VT-RTO	A320-251n	11754	ex F-WWIR, dd 12.12.24, lsd fr CDB Aviation
VT-RTP	A320-251n	11777	ex F-WWDO, dd 12.12.24, lsd fr CDB Aviation
VT-RTQ	A320-251n	11764	ex F-WWDL, dd 12.12.24, lsd fr CDB Aviation
IndiGo [6E/IGO 'Ifly']			
TC-COH	B737-8EH	35850	ex N358AB, dd 16.12.24, lsd fr/op by Corendon Airlines
TC-MKC	B737-8	65900	ex N4022T, dd 08.12.24, lsd fr/op by Corendon Airlines
TC-MKD	B737-8	65186	ex N4022T, dd 08.12.24, lsd fr/op by Corendon Airlines
TC-MKE	B737-8	43334	ex N1779B, dd 12.12.24, lsd fr/op by Corendon Airlines
TC-MKG	B737-8	66344	ex N4022L, dd 12.12.24, lsd fr/op by Corendon Airlines
TC-TJR	B737-82R	40723	ex TC-AMP, dd 16.12.24, lsd fr/op by Corendon Airlines
VT-ICG	A321-251nx	12091	ex D-AZAL, ff 18.11.24, dd 29.11.24
VT-ICI	A321-251nx	12327	ex D-AZYF, ff 30.10.24, dd 07.11.24
VT-ICK	A321-251nx	12222	ex D-AZXF, ff 07.11.24, dd 21.11.24
VT-ICL	A321-251nx	12129	ex D-AZXC, ff 14.11.24, dd 19.11.24
VT-ICM	A321-251nx	12191	ex *D-AVXT,* ff 13.11.24, dd 27.11.24
VT-ICW	A321-271nx	11929	ex F-WWSF, ff 22.10.24, dd 21.11.24
VT-IXP	A320-251n	12038	ex F-WWDR, ff 05.11.24, dd 19.11.24
YL-LDN	A320-232	3641	ex OE-IFQ, dd 24.12.24, lsd fr/op by SmartLynx
9H-SLJ	A320-214	3880	ex EI-GVY, dd 23.12.24 & entered service 26.12.24, lsd fr/op by SmartLynx Malta
SpiceJet [SG/SEJ 'Spicejet']			
OK-TSD	B737-8Q8	41795	ex C-FEVD, dd 02.12.24 & entered service 05.12.24, lsd fr/op by SmartWings
OK-TVL	B737-8FN	37076	ex C-GKVL, dd 02.12.24 & entered service 06.12.24, lsd fr/op by SmartWings
9H-TJE	B737-85R	35106	ex EI-GSN, dd 10.12.24 & entered service 12.12.24, lsd fr/op by Corendon Airlines Europe
Volaris [Y4/VOI 'Volaris']			
N552VL	A320-271n	12181	ex F-WWBV, ff 15.11.24, dd 26.11.24, st Babcock & Brown & lsd back, reg'd same day to Bank of Utah Trustee
VA-VUO	A321-271nx	12277	ex F-WZMU, ff 19.11.24, dd 26.11.24
XA-VVD	A320-232	7006	ex T7-MRF, dd 12.24, lsd fr BOC Aviation
Viva Aerobus [VB/VIV 'Viva']			
XA-VDF	A320-232	5135	ex VP-CKJ, dd 12.24, lsd fr Orix Aviation, entered service 05.12.24
XA-VDH	A320-232	3166	ex LZ-DCV, dd 12.24 & entered service 14.12.24, lsd fr DAE Capital
9H-MLZ	A320-232	3384	ex HA-LPO, dd 17.12.24 & entered service 19.12.24, lsd fr/op by Avion Express Malta
Kangala Air Express [KAE 'Kangala']			
XT-	Beech 1900D	UE-137	ex N81533, dd 12.24
airBaltic [BT/BTI 'Air Baltic']			
YL-ABW	A220-300	55308	ex C-FOUQ, ff 17.10.24, dd 04.11.24
SmartLynx [6Y/ART 'Smart Lynx']			
YL-LDJ	A320-232	4351	ret fr AJet lease
YL-LDM	A320-214	2975	ret fr AJet lease
Dan Air [DN/DNA 'Dan Air']			
OM-LEX	B737-8BK	29642	ex C-FTJH, dd 17.12.24, lsd fr/op by AirExplore
avianca El Salvador [TA/TAI 'Taca']			
N904AV	A320-251n	12289	ex F-WWDX, ff 24.09.24, dd 04.11.24, lsd fr Macquarie AirFinance & reg'd 05.11.24 to UMB Bank NA Trustee
Air Serbia [JU/ASL 'Air Serbia']			
LZ-PLO	ERJ190-100AR	19000584	ex PT-TGW, dd 05.12.24 & entered service 06.12.24, lsd fr/op by Bulgaria Air
Air New Zealand [NZ/ANZ 'New Zealand']			
ZK-MZG	ATR 72-212A (600)	1709	ex F-WWEI, ff 25.11.24, dd 20.12.24
Africa Charter Airline [FSK 'African Sky']			
C5-JRD	B737-4Y0(F)	24917	ex EI-JRD, dd 06.12.24
South African Airways [SA/SAA 'Springbok']			
ZS-SAI	B737-38J	27395	ex P4-JAR, dd 12.24, entered service 05.12.24, lsd fr Sky One FZE
ZS-SZK	A320-232	2958	ex OY-KAN, dd 19.12.24, lsd fr AerCap
Azerbaijan Airlines [J2/AHY 'Azal']			
LY-VUT	A320-232	3275	ex LZ-GNG, dd 19.12.24, lsd fr/op by Heston Airlines
airHaifa [HFA 'Air Haifa']			
4X-IHC	ATR 72-212A (600)	1627	ex F-WWET, ff 28.01.20, dd 19.12.24
Arkia – Israeli Airlines [IZ/AIZ 'Arkia']			
YR-LIB	A320-232	2359	ex 9H-AKO, dd 15.12.24 & entered service same day, lsd fr/op by Fly Lili until 31.10.25
Air Libya [7Q/TLR 'Air Libya']			
5A-FLR	CRJ.200LR	7630	ex LY-UNG, dd 21.12.24, lsd fr AviaAM Leasing
Berniq Airways [NB/BNL 'Manara']			
5A-BRG	A330-243	926	ex VP-CKK, dd 04.12.24, lsd fr AFG
Libyan Express			
UR-CQX	B737-4B7	24558	ex 5N-BIZ, dd 10.12.24 lsd fr/op by YanAir
ANAP Jets [AJP 'Anapjets']			
5N-CEI	Emb-135LR	14500886	ex F-HTOP, dd 26.12.24
United Nigeria Airlines [UN/NUA 'United Nigeria']			
9H-SAT	B737-8Q8	29368	ex UR-SQQ, dd 29.11.24 & entered service 02.12.24, lsd fr/op by SkyUp Europe
Madagascar Airlines [MGY 'Madagascar Airlines']			
LY-JUA	ATR 72-212A (500)	858	ex 2-META, dd 11.12.24 & entered service 12.12.24, lsd fr/op by Jump Air
5R-EJH	ATR 72-212A (500)	900	ex M-SIMO, dd 30.12.24, lsd fr ACIA Aero Leasing
Kush Air			
5X-	DHC-8 402	4489	ex N453QX, dd 16.12.24, (N453QX canx 16.12.24)
Renegade Air			
5Y-RNK	CRJ.200LR	8033	ex N833AY, dd 11.12.24
Skyward Express [OW/SEW 'Skyward Express']			
5Y-SKF	Fokker 100	11321	ex 2-OAOM, dd 20.12.24
Som Express Airways			
7Q-SOM	Emb-120ER	120281	ex TT-DEV, dd 12.24
Star Aviation [DST 'Star Aviation']			
7T-VNW	DHC-6 400	939	ex C-FGOR, dd 12.24
KM Malta Airlines [KM/KMM 'Sky Knight']			
LY-NVI	A320-232	3004	ex VP-CCL, dd 20.12.24 & entered service 21.12.24, lsd fr/op by Avion Express
SkyUp Europe [U5/SEU 'Sky Malta']			
LY-NVH	A321-231	2653	ex VP-CBX, dd 15.12.24, lsd fr/op by Avion Express
9H-VDS	A320-214	1757	ex HK-5051, dd 20.12.24, lsd fr/op by Galistair
Wizz Air Malta [W4/WMT 'Wizzair Malta']			
9H-WNR	A321-271nx	12146	ex D-AZWW, ff 30.10.24, dd 18.11.24 to Wizz Air
Royal Air Charters			
9J-PKP	Emb-135KL	145734	ex N851AE, dd 05.12.24, lsd fr Regional One, (N851AE canx 05.12.24)
AirAsia [AK/AXM 'Red Cap']			
9M-VAG	A321-251nx	12116	ex D-AZWV, ff 12.11.24, dd 26.11.24
Batik Air Malaysia [OD/MXD 'Malindo']			
9M-LDU	B737-8GP	39835	ex PK-LBZ, dd 12.24, entered service 05.12.24, lsd fr BOC Aviation
9M-LFH	A330-343E	1832	entered service 06.12.24, was dd 22.09.24
Malaysia Airlines [MH/MAS 'Malaysian']			
9M-MNG	A330-941	2080	ex F-WWCZ, ff 06.11.24, dd 28.11.24, lsd fr Avolon Aerospace
Buddah Air [U4/BHA 'Buddah Air']			
9N-AOG	ATR 72-212A (500)	907	ex EC-LGF, dd 04.12.24
Air Congo			
9S-AGA	B737-860	40961	ex ET-APF, dd 16.12.24, lsd fr Ethiopian Airlines
Mont Gabaon Airlines [MG]			
9S-AMP	B737-5Y0	25183	ex ZS-TGY, dd 03.12.24, lsd fr Africa Charter Airline, named 'Alpha One'
Scoot [TR/TGW 'Scooter']			
9V-THF	ERJ190-300	19020165	ex PR-EGR, ff 22.11.24, dd 15.12.24, named 'Gotta Scoot!'
Singapore Airlines [SQ/SIA 'Singapore']			
9V-SJI	A350-941	697	ex F-WZGO, ff 15.10.24, dd 08.11.24

We welcome any feedback on this listing

(The listing is alphabetical with reference to the registration of the country of origin. Columns indicate the registration, type, construction number and notes.)

All-Airbus operator Allegiant Air began its transition to a Boeing 737 MAX fleet in the last quarter of 2024 with the introduction of four -8200s. Configured with 190 seats in a single-class layout, N813NV (c/n 68004) was the third to arrive on November 29, 2024
JOE G WALKER

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The latest news from maintenance, repair and overhaul providers

By Nigel Pittaway

TAAG selects LHT

TAAG Angola Airlines has selected Lufthansa Technik to provide aircraft component services for its fleet of new Boeing 787 airliners. The Total Component Services (TCS) agreement will run for 12 years, which began with the delivery of the first aircraft in January and will cover both the 787-9 and 787-10 aircraft being acquired by the Angolan flag carrier.

In addition, LHT will also provide support to TAAG through its Aircraft Production Inspection Programme (APIP), which will cover not only the 787 fleet, but also the carrier's new Airbus A220 aircraft – the first of which was delivered in September 2024.

Under the TCS, TAAG will have access to Lufthansa Technik's worldwide pool of spare parts, as well as providing Aircraft On Ground (AOG) support and parts pooling and logistics work scope services.

Nelson Oliveira, CEO and accountable manager for TAAG Angola Airlines, commented: "With no less than two modern aircraft types joining our fleet at nearly the same time, we are happy to rely on the renowned engineering expertise and the wealth of experience only Lufthansa Technik's experts can provide. With their strong support, we are looking forward to a quick ramp-up of our new 787 and A220 operations. Our partner's reliable component support will moreover ensure a smooth 787 Dreamliner operation from day one." (Photo TAAG Angola Airlines)

ANGOLA AIRLINES
TAAG

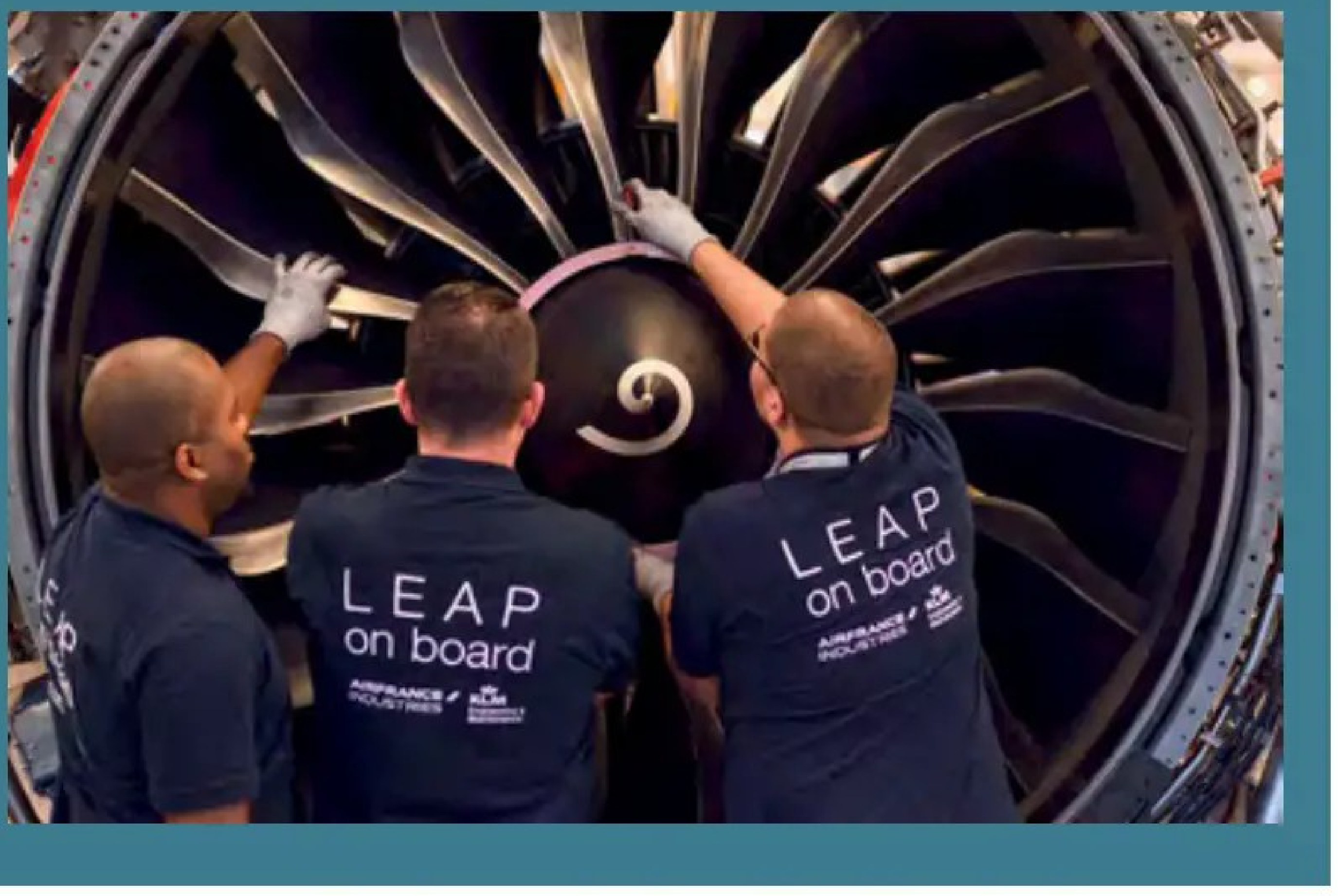
AFI KLM E&M buys LEAP engines

Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) has signed an agreement to purchase up to ten spare CFM International LEAP-1A and LEAP-1B engines.

The company said that the engines will be used to support its portfolio of LEAP Premier MRO services for its customers around the world, allowing aircraft to remain in service while it overhauls the operators' primary engines. The first spare engine will be delivered in 2025.

Anne Brachet, executive vice president of AFI KLM E&M, explained: "This agreement with CFM International is a significant step forward in our efforts to support our MRO customers with world-class services. With this expanded engine supply, we can offer even more flexibility and reliability in meeting the needs of airlines operating CFM-powered aircraft around the world. Our customers can rely on us for the best in terms of both engine maintenance expertise and logistical support."

Gaël Méheust, president and CEO of CFM International, added: "We are proud to expand the relationship with AFI KLM E&M on this important initiative. This agreement reflects the strong partnership between our companies, as well as our shared commitment to providing the highest levels of support to the growing LEAP fleet worldwide. We look forward to working closely with AFI KLM E&M as part of our Premier MRO ecosystem to ensure seamless operations for our airline customers." (Photo AFI KLM E&M)



Dreamliner decade for Collins, LHT

Collins Aerospace and Lufthansa Technik have celebrated the tenth anniversary of their support for Boeing 787 engine nacelle structures.

The milestone marks a decade of collaboration between the two firms, which has seen the completion of more than 100 engine nacelle overhauls.

The licence agreement between the pair was originally signed in November 2013, with work beginning in November of the following year. It allows the two companies to deliver comprehensive repair and asset provision services for nacelles fitted to both engine options for the Boeing 787, with workshops located in Hamburg (Germany), Shenzhen (China) and Dubai (UAE).

Sven Duve, senior director for Aircraft Related Components at Lufthansa Technik, noted: "We were honoured when Collins Aerospace invited us in 2013 to join their new network. Since the beginning of this collaboration, we have worked together to support our customers, leveraging the strengths of each partner and continuously learning from one another. We look forward to continuing our successful work with Collins Aerospace and serving the aviation industry for many more years." (Photo Collins Aerospace)

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Letters to the editor

Dear Editor,
Thank you very much for publishing *Airliner World* magazine, I love it. It's a full house this morning at Hong Kong/Chek Lap Kok on Sunday October 13, 2024. As you can see in the attached photo I took, there are 11 Cathays lined up, from front to back, there are…

- B-LRO, Gate 24, A350-941 departing for Singapore as CX691.
- B-LRD, Gate 26, A350-941.
- B-HPP, Gate 28, A321-251NX, departing for Taipei as CX488.
- B-HNG, Gate 30, B777-367, departing for Taipei and Kansai as CX564.
- B-LXJ, Gate 32, A350-1041.
- B-HPG, Gate 34, A321-251NX, departing for Hanoi as CX741.
- B-LBJ, Gate 36, A330-343, departing for Jakarta as CX777.
- B-LRG, Gate 60, A350-941, departing for Taipei as CX464.
- B-LBB, Gate 62, A330-343, departing or Manila as CX901.
- B-HNO, Gate 64, B777-367, departing for Tokyo-Narita as CX504.
- B-HNN, Gate 66, B777-367, departing for Denpasar as CX785.

Wonderful!

However, my legs were like sticks when I reached Gate 66. Check registration code and walk, check registration code and walk… Then I had to go back half way since my flight was departing from Gate 35! Cathay Pacific is one of my favourite airlines in Asia, I hope you can feature this airline in the near future.

Thank you once again for the great magazine.
Best wishes,
Kazuhiro Kobayashi
Yokohama, Japan

Ed: Thank you for your letter and photo, Kazuhiro – it certainly sounds like it was a busy morning in Hong Kong! We hope you enjoyed this issue of the magazine and particularly the From the Cockpit article (see pages 52-59) featuring a Cathay Pacific Airbus A350. We plan to cover the airline in depth in a future article soon, as it has tracked an impressive recovery since the pandemic. Watch this space!

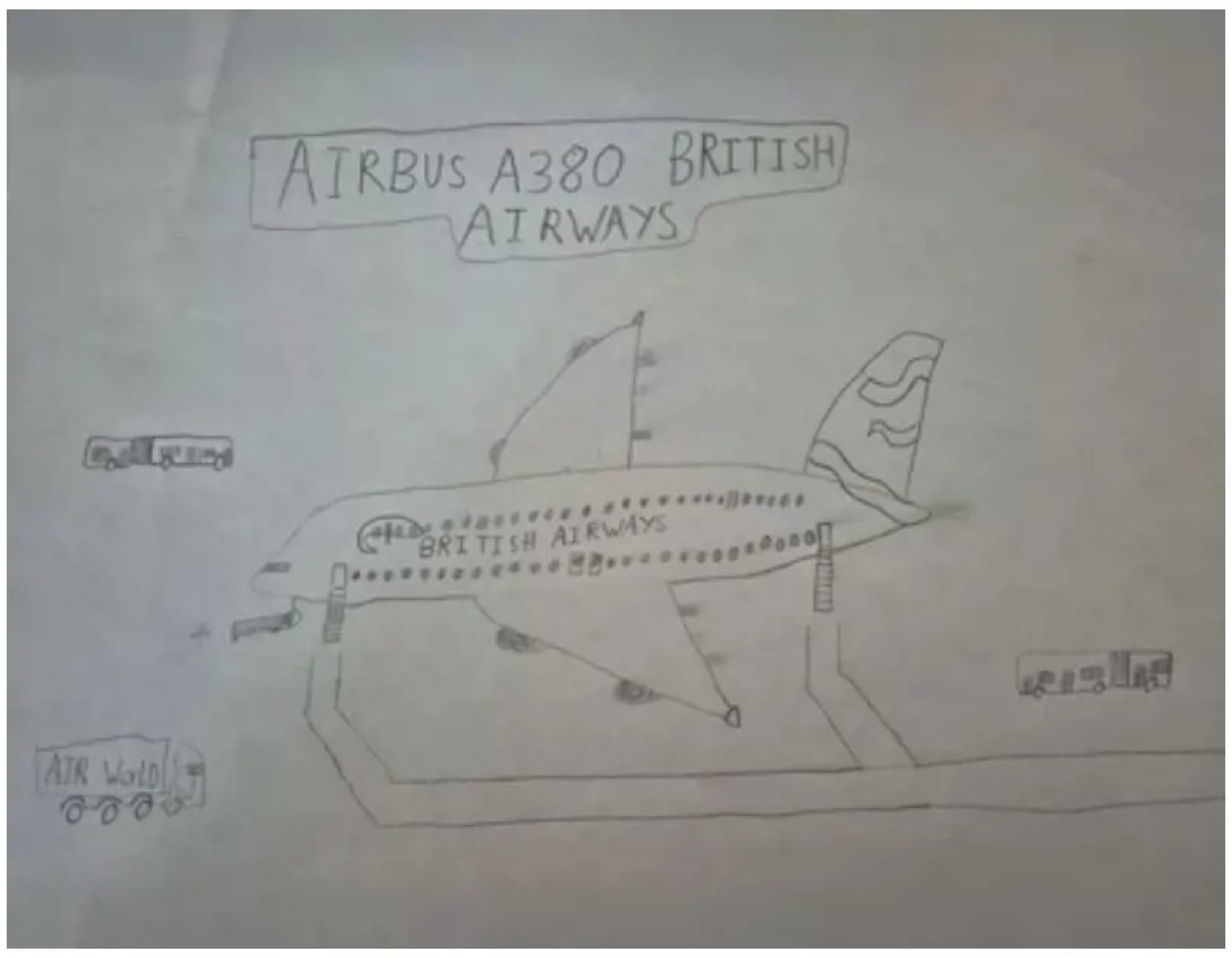
Dear Editor,
I enjoyed reading the article on the history of Cambrian Airways in *Airliner World* (see February 2025 issue). It brought back memories of Cambrian movements through Southampton, in particular the last flight of the DC-3, G-AHCZ (c/n 11924). As your article states, it was a modified Pionair with 24 reclining seats, hot meal catering and extra sound-proofing. But for all that, it was still a DC-3! The aircraft operated mainly on the daily Cardiff-Bristol-Southampton-Paris/Le Bourget route as CS707 returning as CS706. On October 31, 1968, Cambrian withdrew all its remaining Pionairs including G-AHCZ. Its last flight was a round trip to and from Paris commanded by veteran Cambrian captain, Ronnie de Wilde, who was flying his final flight prior to retirement. A small farewell was planned at Southampton for the aircraft and captain when it transited through Southampton on its way home. *Southern* TV and the *Southampton Echo* newspaper were to be in attendance and a presentation made to Ronnie by the BEA Station Superintendent (my Father). It was due to arrive at 1650hrs and depart for Bristol at 1710hrs. I was still at school then and rushed to witness the event, only to be told the aircraft was to overfly Southampton as the booked passenger from Paris had not turned up. So no celebration! Cambrian operated other routes briefly from Southampton including to Dinard and Nice, and for a time even had their own handling unit there. After the retirement of the Pionairs, the Southampton-Paris route was operated three days a week by Viscounts and later by the BAC One-Elevens.
Kind regards,
Phil Lo Bao

Ed: Thank you for your letter, Phil – and for sharing your memories of Cambrian. I'm glad to hear you enjoyed the article.

Dear Editor,
My name is Joseph and I am nine years old. My favourite planes are the Airbus A380 and the Boeing 747, and my favourite airline is Emirates. My favourite airport is Heathrow Terminal 3. I really enjoy *Airliner World* especially January's issue of the Airbus A321XLR.

My drawing is of an Airbus A380 at Heathrow Terminal 5. I hope you like it!
Thanks a lot,
Joseph

Ed: Thanks so much for sending your picture in, Joseph – it's great to hear you love aeroplanes and I think your choice of the A380 and 747 is superb!



Dear Editor,
Your latest article regarding introduction of the A321XLR namely 'Going the XLR Mile' (see *Airliner World* January 2025) has prompted me to write on behalf of many present and future 'cattle class victims'. Actually, the author has touched on the concerns by the mention – 'dense economy cabin', 'the lack of a mid-cabin lavatory is a flaw' and 'crowded lines to the loo.'

I have already experienced five hours and more on A321neo flights, on all of which, towards the end of the flight the toilet facilities were becoming rather obnoxious. I'm afraid that both versions of the aircraft are soon going to become 'cattle class horrors' to be avoided.
Regards
Alan Woof, Madrid

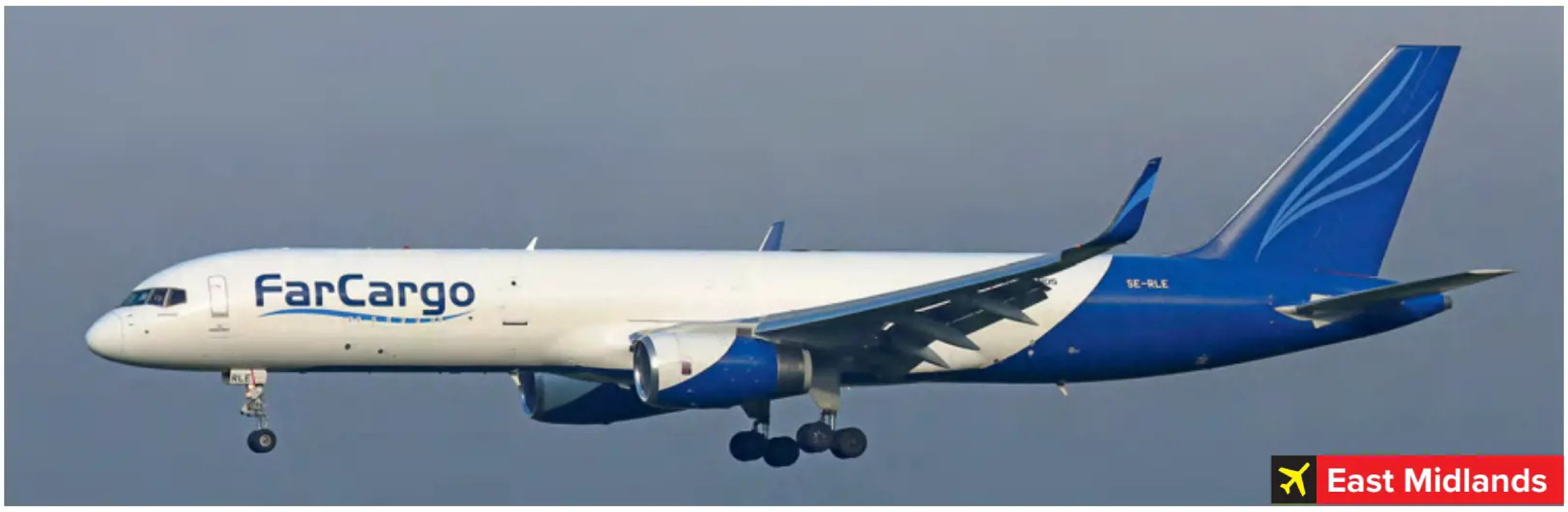
Ed: Thank you for your letter, Alan. It will certainly be interesting to see how the A321neo passenger experience develops as the XLR increases its presence in the market – especially when low-cost carriers get their hands on it.

GET IN TOUCH WITH AIRLINER WORLD

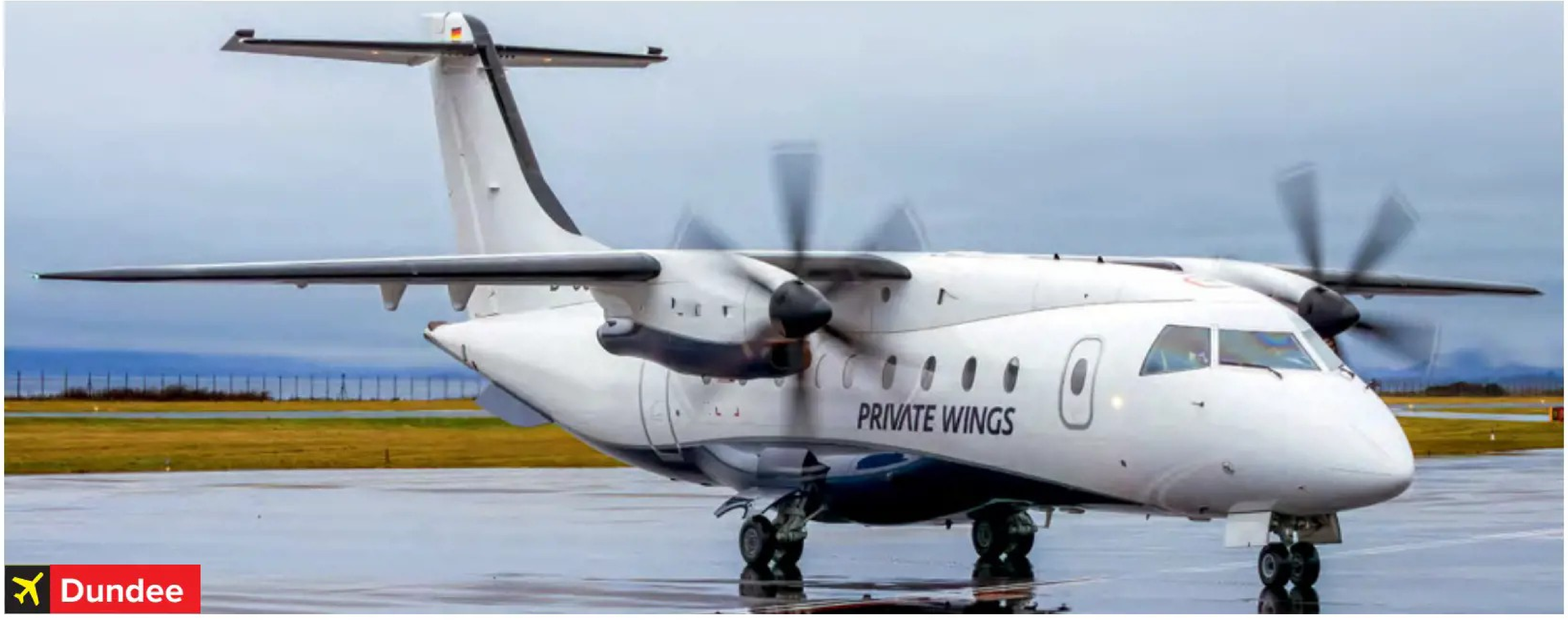
Do you have a historical tale, burning question, or comment about the magazine to share with our global audience? Get in touch via airlinerworld@keypublishing.com with the subject 'Letters to the Editor', or drop us a message on Facebook.com/AirlinerWorld, on Twitter @_AirlinerWorld or join the debate on our Key.Aero forum. As we return to the editorial office, we are also able to welcome letters once again – the postal address is: *Airliner World*, PO Box 100, Stamford, Lincolnshire, PE9 1XQ

UK *Visitors*

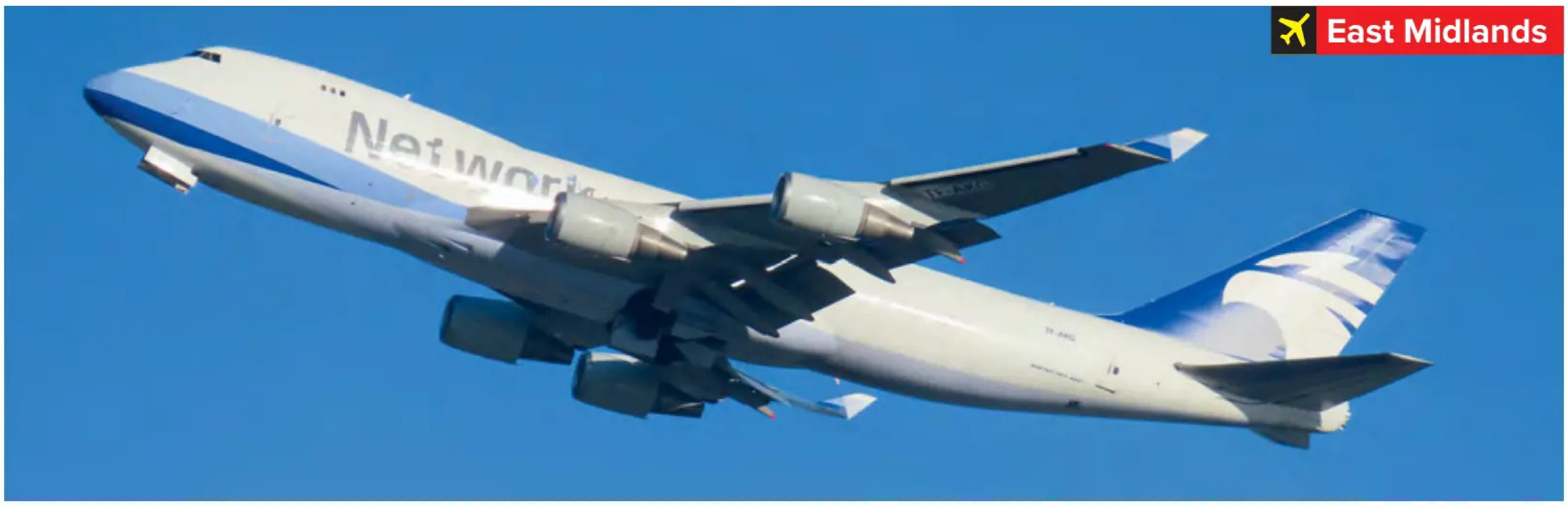
We present a selection of images of visiting aircraft from airports around the UK. For the most part, they're commercial jets, but almost all of them are unusual types, wearing new or unique liveries, or first visits by an airline or airliner to a particular airport. If you see something out of the ordinary while on your travels, please send in your pictures. Photos can be emailed to **airlinerworld@keypublishing.com** Please ensure you provide full details with the images, particularly the date, location, airline name and aircraft identity



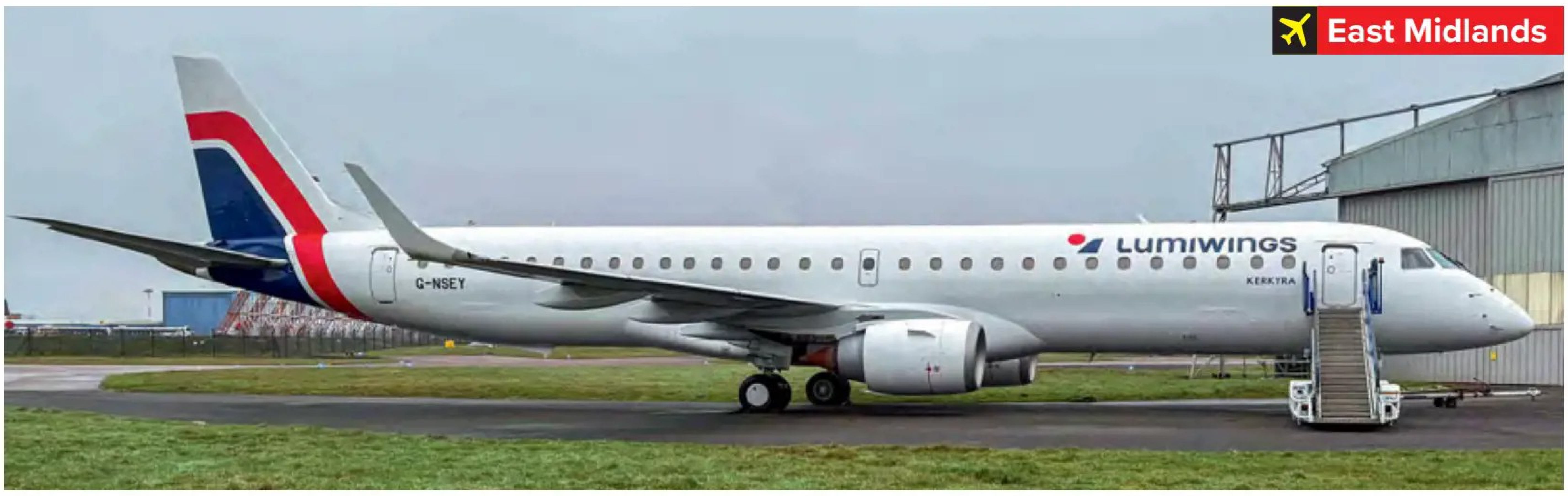
While the UK's last passenger Boeing 757 may have been retired from service, the type will still be making appearances at UK airports, mainly in a cargo capacity. This particular 757-223PCF, SE-RLE (c/n 32379), belongs to FarCargo of the Faroe Islands, but is operated by West Atlantic Sweden as the former is still awaiting its own AOC
JOHN GREGORY



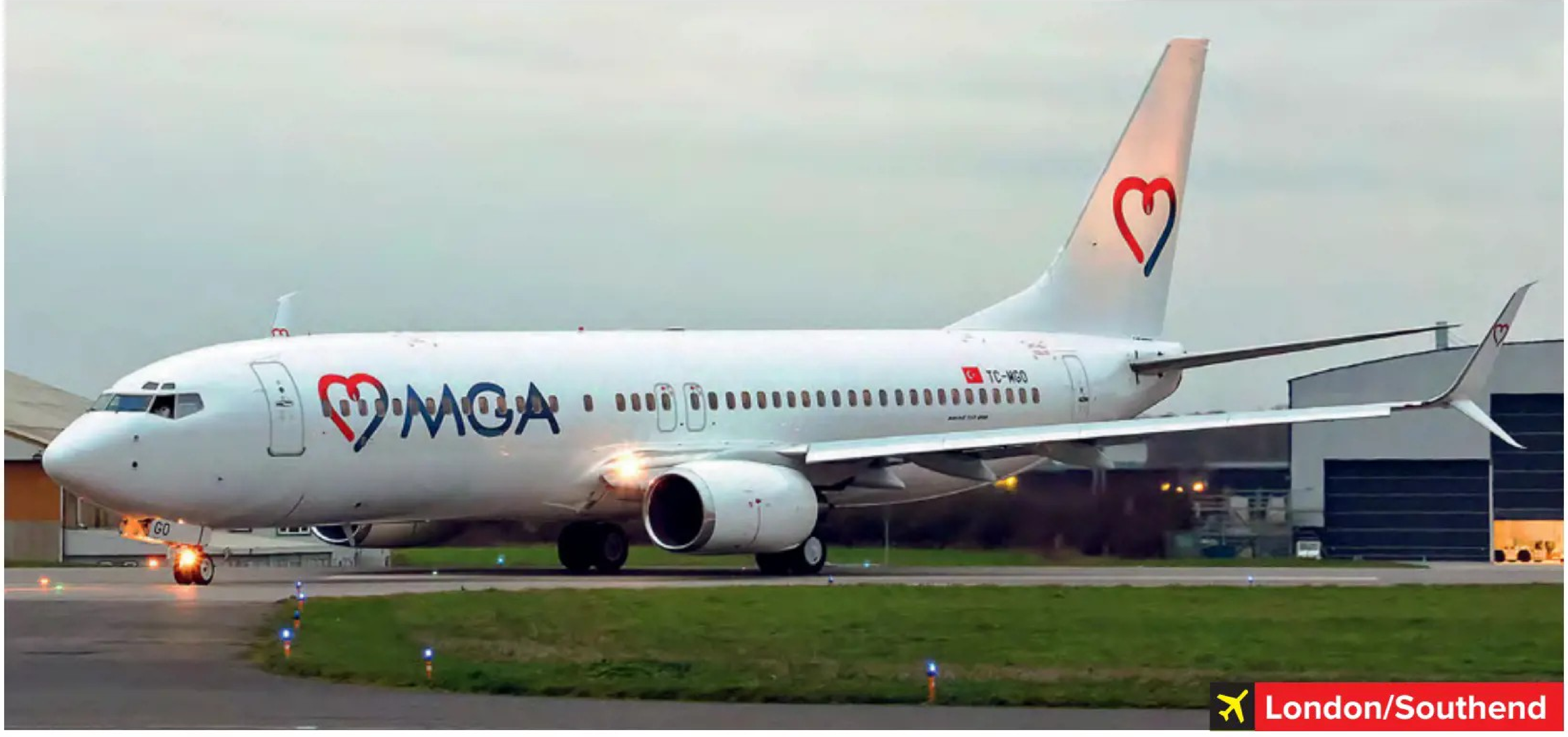
This Dornier 328-110, D-CSUE (c/n 3019), was captured at a damp Dundee Airport. The 30-year-old turboprop belonging to German charter carrier Private Wings, had arrived from Berlin and was awaiting its passengers for a flight to Oslo
MARK MCWALTER



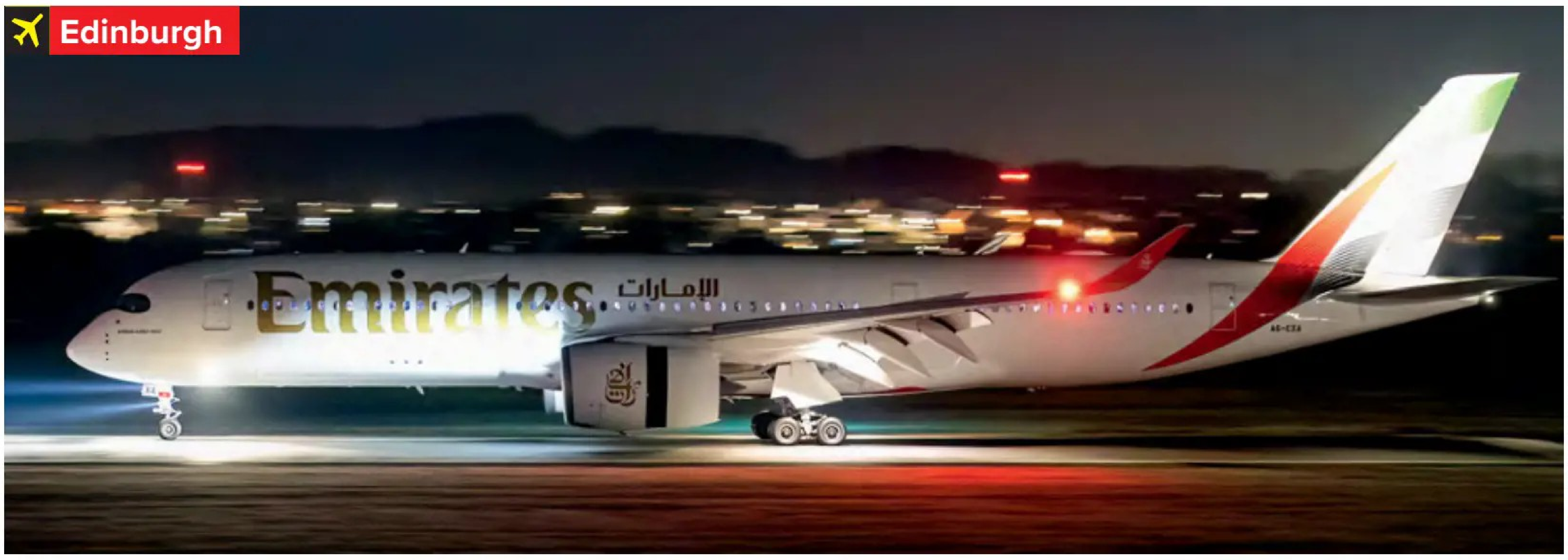
Seen powering out of East Midlands in early January 2025, bound for New York/JFK, is this Boeing 747-409F, TF-AKG (c/n 33732), owned by Network Aviation. The aircraft is operated by Air Atlanta Icelandic, but started life with China Airlines in December 2003 as B-18716. The livery of its former owner is still visible on the fuselage
MATTHEW COCKRELL



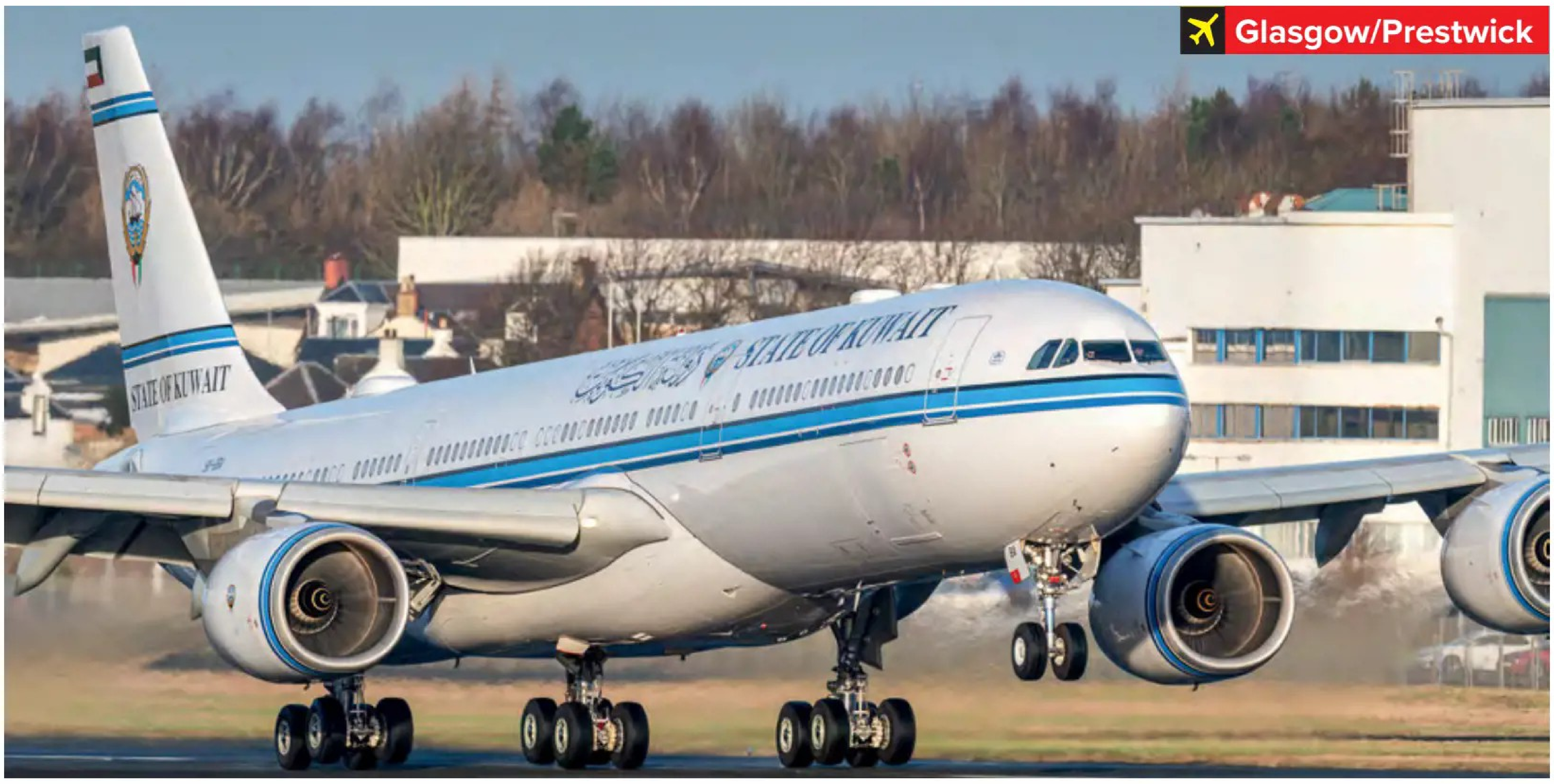
Embraer E195, G-NSEY (c/n 19000671), was previously flown by Aurigny Air Services, but was retired by the airline in May 2024 and later acquired by Azorra Aviation. It was captured at East Midlands wearing Lumiwings' livery, but was later returned to an all-white scheme when the lease didn't come to fruition
MARTYN CARTLEDGE



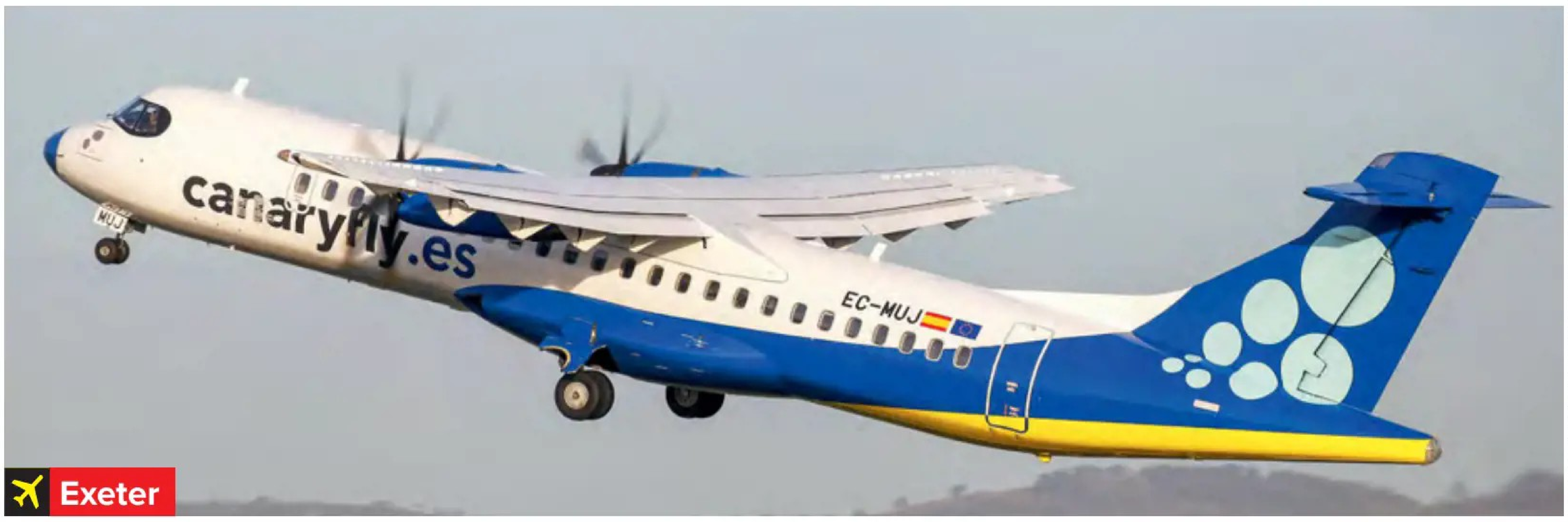
This Boeing 737-85F, TC-MGO (c/n 30006), is seen leaving London/Southend bound for Antalya. It had earlier arrived wearing the bright orange livery of its previous operator, South Africa's Mango, before being painted in the scheme of its new owner, Turkish charter carrier Mavi Gök Airlines (MGA)
KEITH BURTON



Soon to be a regular visitor to UK airports is Emirates' maiden Airbus A350-941, A6-EXA (c/n 684). It was captured on its first visit to the UK on January 3, 2025, operating flight EK2587 from Dubai to Edinburgh
KYLE MCKINLAY



The State of Kuwait's Airbus A340-541, 9K-GBA (c/n 1091), departing Glasgow/Prestwick on January 16, 2025. The four-engine widebody was carrying the Emir of Kuwait who had been visiting Scotland at the personal invitation of King Charles III
SAM SHARP



Canaryfly ATR 72-500, EC-MUJ (c/n 879) departing Exeter Airport as CNF001P en route to Las Palmas via a technical stop at Jerez on January 25, 2025. This is the third example to be painted, at Exeter by Airbourne Colours, into the airline's new house scheme
IAN SIMPSON

Air India pilot training boost

As preparations continue for Air India to begin training cadet pilots at a new flight training organisation (FTO) located in Amravati, around 340 miles northeast of Mumbai, the carrier has placed orders for 34 training aircraft.

The agreements include 31 single-engine trainers from Piper Aircraft and three twin-engine examples from Diamond Aircraft. The FTO is a step forward in Air India's commitment to bolster its training infrastructure as part of its Vihaan.AI transformation programme (see *Airliner World* December 2024) and cultivate a pipeline of pilots as it expands its fleet.

The trainer aircraft, due for delivery starting this year, are equipped with Garmin G1000 glass cockpits and Jet A1-powered engines. The FTO is due to open at Amravati's Belora airport and will target to graduate 180 commercial pilots every year.

Sunil Bhaskaran, director, Aviation Academy, Air India, said: "The new FTO is a strategic move to exponentially expand our training infrastructure and our commitment to building a self-reliant ecosystem of qualified pilots for both Air India and the wider Indian aviation industry.

"With this order of 34 trainer aircraft to support South Asia's largest FTO, we are delighted to be playing a part in building the aviation infrastructure India needs as one of the world's fastest-growing aviation markets."

As part of its commitment to invest in aviation training, the Indian flag carrier has also opened its new Aviation Training Academy, spread over 600,000sq ft, in Gurugram, southwest of New Delhi, the largest of its kind in South Asia. It is also the first airline in the country to announce the creation of an FTO that will complement its commitment to power India's aviation ecosystem in the coming years.

At the FTO in Amravati, Air India is developing a state-of-the-art training institute over ten acres, with digitally enabled classrooms on a par with global academies, hostels, a digitised operations centre and its own maintenance facility to elevate operational efficiency. (Photo Air India)

FTE picks Piper

Piper
FTEJerez
ARCHER DX

Spanish flight school FTEJerez has signed an agreement with Piper Aircraft for the acquisition of 20 brand-new Piper Archer DX aircraft, with the delivery of the first ten beginning in December 2024.

Oscar Sordo, FTEJerez CEO, said: "Our acquisition of these aircraft is a testament to FTE's commitment to excellence in aviation training. Having operated older Piper Warrior aircraft for many years, we have a proven track-record with Piper as a reliable supplier. The Archer DX will enhance our training capabilities and ensure that our students receive the best possible training in a modern, sustainable and efficient flying environment."

Based in Jerez, the flight school is known for its training programmes and close relationships with airlines including Aer Lingus, Etihad Airways, Iberia and Ryanair. Notably, it was selected by British Airways as one of two schools to provide its fully sponsored Speedbird Pilot Academy cadet programme.

John Calcagno, president and CEO of Piper Aircraft, said: "Expanding into the European market with FTEJerez underscores Piper Aircraft's commitment to supporting top-tier pilot training. The Archer DX delivers the reliability, performance and efficiency required to meet the demands of students and airline partners alike."

The single-engine piston trainer is powered by a jet fuel burning Continental CD-155 diesel powerplant. It also boasts Garmin G1000 NXi avionics. (Photo FTEJerez)

Tag, you're it

Scottish regional airline Loganair has begun 'tagging' ATPL trainees at Gloucester-based Skyborne Airline Academy on successful completion of their first six months of ground school.

This means cadets will receive priority placement in the airline's hold pool prior to graduation. Skyborne is the first academy to partner with Loganair to tag integrated ATPL trainees.

Carla Booth, Skyborne's UK commercial director, said: "At Skyborne, our aspiring airline pilots are at the heart of everything we do and through our new partnership with Loganair, I'm proud we can offer a path to a rewarding career with a thriving airline.

"Offering security to our trainees through job opportunities is important, and we look forward to seeing them soar with Loganair."

Once tagged, trainees will receive mentoring from Loganair throughout the remainder of their studies across Skyborne's US and UK bases, before going on to undertake type rating training with Loganair.

Jordan Jennings, flight crew recruiter at Loganair, added: "It's become apparent from our first intake of Skyborne trainees that the quality of the training provided is incredibly high and therefore embarking on this partnership was an easy decision for Loganair.

"We are proud to be working as a partner for the integrated ATPL tagging initiative, which allows us to meet the growing demand for regional travel with highly skilled, qualified individuals as part of our crews.

"The successful graduates from Skyborne will join the Loganair family where they will fly our dynamic fleet of turboprops and regional aircraft to unique locations including Barra and Tiree, across the UK and Europe." (Photo Skyborne Airline Academy)

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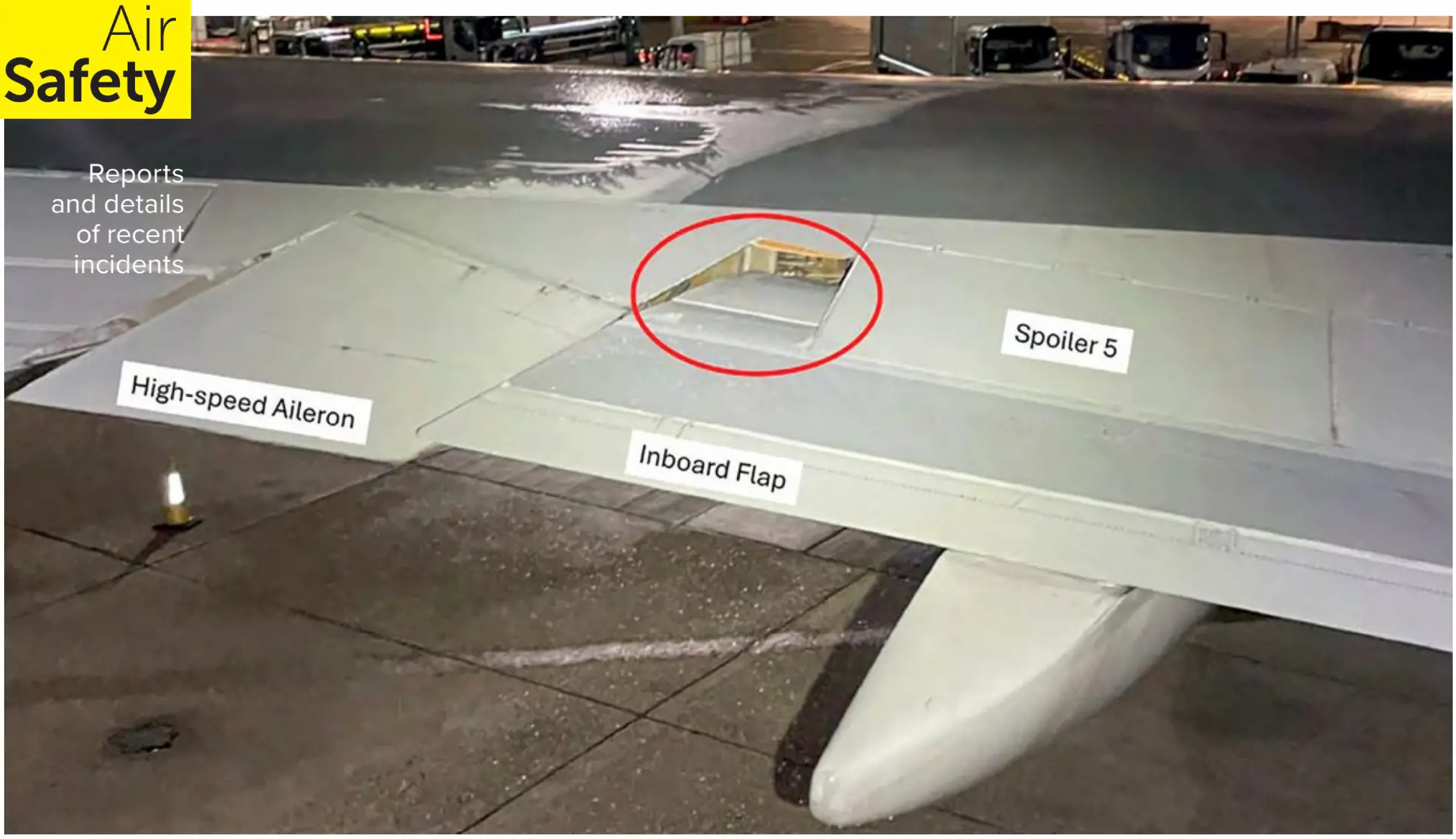


Wing panel falls off 747 at Heathrow

ABOVE: *Location of missing wing panel (circled in red)* AAIB

An upper left wing panel detached from a landing Boeing 747 at London/Heathrow and remained undetected in the grass next to the runway for two months, a report by the UK Air Accidents Investigation Branch (AAIB) has found.

The incident – which involved One Air Boeing 747-433BDSF, G-UNET (c/n 25075) – occurred on January 6, 2024. On March 4, the AAIB received a report from the airport's operator that a large metal panel had been found in the grass area to the south of runway 27L, about 600m west of the runway threshold. The panel was sent away for examination, where it was identified. Subsequent enquires revealed that Echo Tango had arrived on stand two months earlier with the panel missing from its left wing. According to the report, the flight crew had been unaware that anything had detached, but it was identified as missing during the subsequent turnaround. One Air filed a Mandatory Occurrence Report (MOR) to the Civil Aviation Authority (CAA), but did not report it to the AAIB as they did not consider it met the threshold for an accident or serious incident.

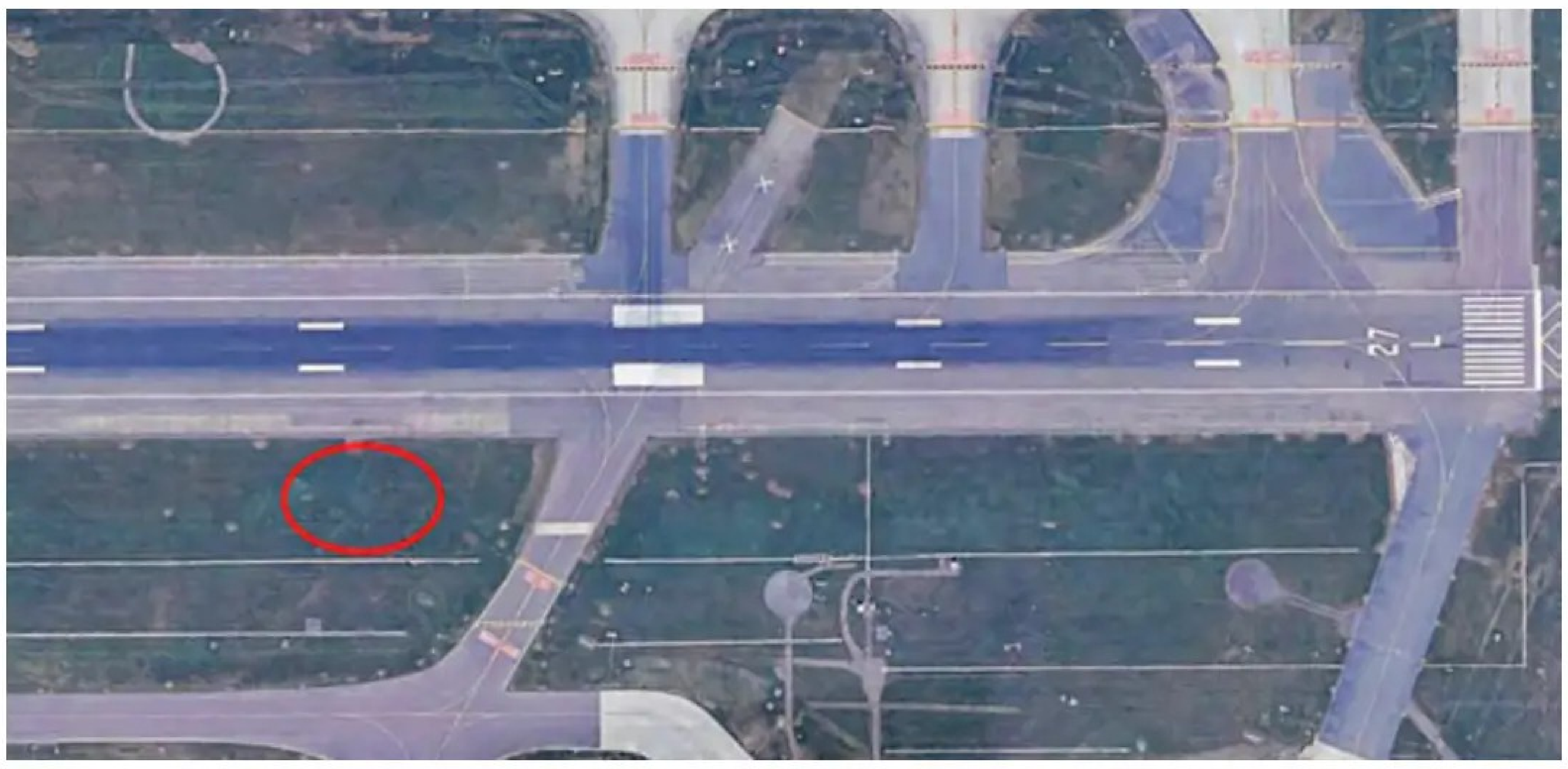
The panel, which measured approximately 1.1m by 0.9m, detached from the upper left wing, adjacent to the outboard edge of spoiler five. The metal piece had a structural failure at its forward and inboard edges.

The AAIB concluded that the panel most likely detached due to fatigue cracking of its supporting rib, which itself was known to suffer from cracks and Boeing had published a service letter (initially in 2005) with actions to help mitigate cracking, although the actions have not always prevented it.

The US airframer was asked by the AAIB for information on previous wing panel detachments. Its database showed ten panels of the same part number had detached: eight were found during walkaround inspections after landing with no detail as to the phase of flight, one was listed as "panel departed on approach", while another was during departure when the crew "felt a shudder" and noted missing material during the flight.

In its analysis of the incident, the AAIB noted that it was likely the panel detached after touchdown when the spoilers were deployed. "The aircraft manufacturer's analysis indicated that the loss of such a wing panel in-flight had an acceptably low probability of causing damage that would result in either an injury or continued safe flight," the report said.

The most likely hazard, the report said, was considered to be runway FOD (foreign object damage), which "could cause damage to a landing or departing aircraft". The AAIB report cited the example of Air France Flight 4590, a Concorde that crashed on departure from Paris/Charles de Gaulle on July 25, 2000, after striking debris on the runway. For its part, Heathrow had a FOD radar detection system, but this only covers the airport's hard surfaces.



RIGHT: *Location of metal panel (circled in red) relative to runway 27L* AAIB

LEFT: ***VH-OQI flew for nearly 300 hours with the missing tool lodged inside its left-hand outboard engine***
AIRTEAMIMAGES.COM/ STEVE FLINT

Missing tool found in Qantas A380 engine

A Qantas Airbus A380 flew for almost a month with a maintenance tool in one of its engines, a report by the Australian Transport Safety Bureau (ATSB) revealed.

VH-OQI (c/n 55), underwent a three-day scheduled check at Los Angeles International Airport (LAX) on December 6, 2023. On day one, during a scheduled borescope inspection of the outboard left engine, a 1.25m-long nylon turning tool was left in the engine inlet. On the evening of December 8, the quadjet was released to service and departed for Melbourne, Australia.

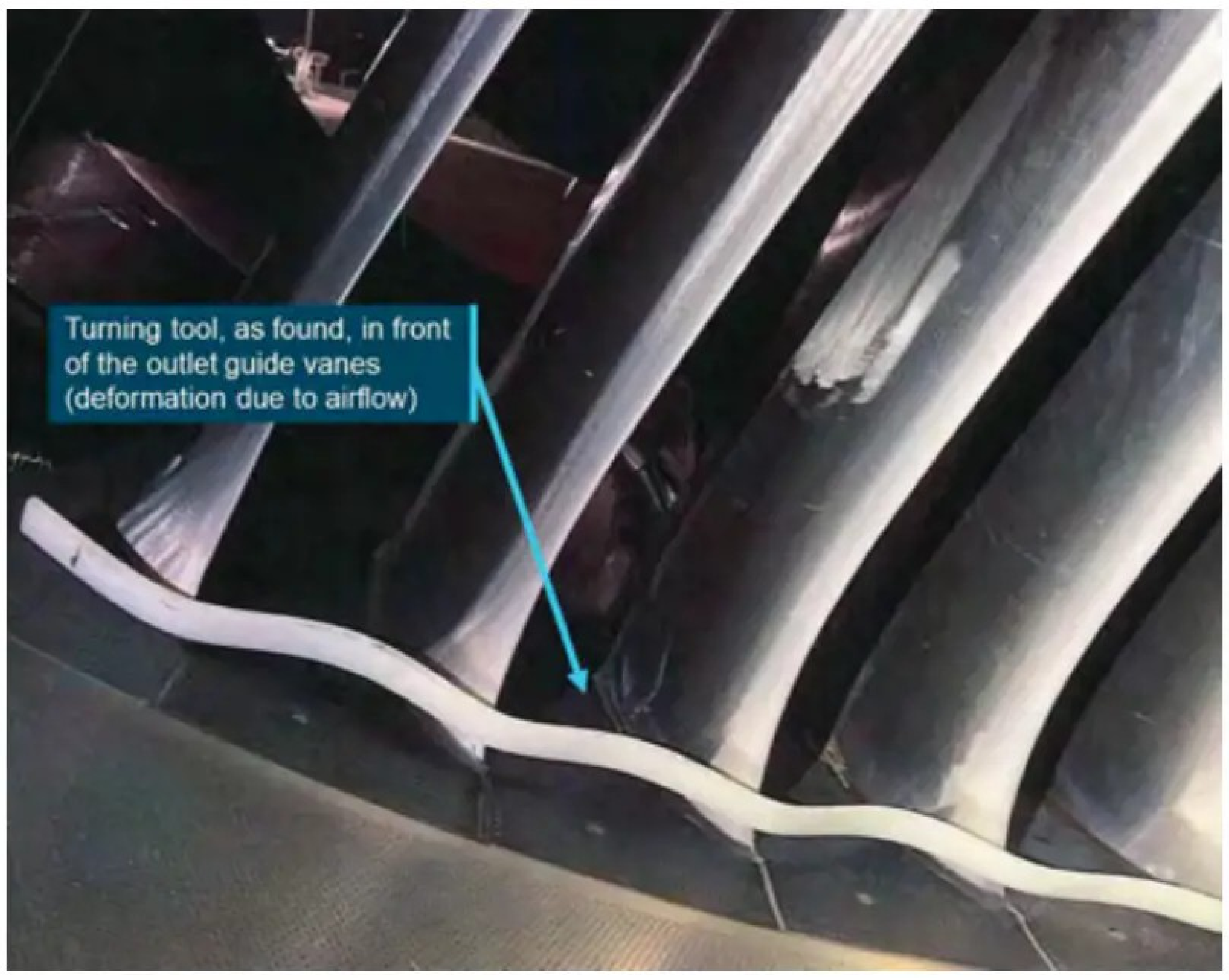
Quebec India returned to the Qantas Engineering facility at LAX on January 1, 2024, for another three-day maintenance check, where the missing tool was discovered lodged in the low-pressure compressor (non-rotating) of the outboard left engine. The aircraft had since flown 34 cycles (flights) totalling 293 hours with the tool in the powerplant.

In its report, the agency said: "The ATSB found that the tool was not located during the end of task foreign object inspections, which resulted in it remaining in the engine. The Qantas Engineering lost tool procedure was not commenced prior to the aircraft being released to service and the certifying engineer did not follow up on the lost tool, prior to releasing the aircraft to service."

The investigators found that an aircraft maintenance engineer and a licensed maintenance engineer did not observe an engine turning tool that was left in the engine during the foreign object inspections after carrying out maintenance on the powerplant. According to the ATSB, one of the contributing factors for the incident was the lost tool procedure not being commenced by the involved aircraft maintenance engineers when the tool was identified as missing. As a result, the service engineer certified a certificate of release (CRS) with the tool still unaccounted for, meaning the 14-year-old jet was released to service with it still in the engine.

For its part, Qantas Engineering raised an internal incident report and advised that staff were briefed on the importance of ensuring that all the tooling is returned and actioned by store personnel. The organisation also released an internal safety directive requiring all employees to meet the requirements of tooling control without exception.

BELOW: ***Location of the turning tool as found in front of the low-pressure compressor outlet guide vanes***
ATSB/QANTAS


Turning tool, as found, in front of the outlet guide vanes (deformation due to airflow)

DATE	REG'N	C/N	TYPE	OPERATOR	FATALITIES	LOCATION	NOTES
December 11	5N-JRT	26081	Boeing 737-4Y0SF	Allied Air	0	Nigeria	Veered off right side of runway on landing in Abuja
December 18	N403LC	4590	Lockheed L-100-30 Hercules	Lynden Air Cargo	0	United States	Experienced rapid decompression after departure from St Mary's, Alaska. Landed safely in Anchorage
December 22	G-CMMK	1297	ATR 72-600	Emerald Airlines UK	0	United Kingdom	Suffered nose gear collapse on landing at Belfast/City
December 22	P2-SAM	2197	Britten-Norman BN-2B-26 Islander	North Coast Aviation	5	Papa New Guinea	Collided with terrain approximately 32nm northeast of Nadzab, Papa New Guinea
December 23	HB-JCD	55013	Airbus A220-300	Swiss International Air Lines	1	Austria	Smoke reportedly developed in cabin. One cabin crew member collapsed and later died in hospital on December 30
December 25	4K-AZ65	19000630	Embraer E190	Azerbaijan Airlines	38	Kazakhstan	Crashed near Aktau Airport after external 'unlawful interference' while attempting to land in Grozny, Russia
December 28	C-GPNA	4032	Bombardier DHC-8-402Q Dash 8	PAL Airlines	0	Canada	Substantially damaged during landing incident at Halifax/Stanfield
December 29	HL8088	37541	Boeing 737-8AS	Jeju Air	179	South Korea	Aircraft made gear-up landing at Muan and collided with concrete embankment after runway overrun

malaysian

TOP: *Malaysia Airlines Airbus A350-941, 9M-MAF (c/n 203), was delivered to the carrier in May 2018 and is seen departing London/Heathrow for the long journey back to Kuala Lumpur* AIRTEAMIMAGES.COM/SIERRA BRAVO

Just over a decade from its annus horribilis, Malaysia Airlines is looking to the future, posting modest profits, welcoming new aircraft and rolling out new inflight products. However, it hasn't all been smooth flying, as **Lee Cross** discovers

The Malaysian flag carrier can trace its history back to 1937, when Malayan Airways was established. However, it would be another decade before it finally took to the skies, operating a flight from Singapore to Penang via Kuala Lumpur and Ipoh with an Airspeed Consul. Over the next few years, the airline expanded and, in 1958, became a public limited company jointly owned by the British Overseas Airways Corporation (BOAC) and Qantas, along with the governments of Malaya, Singapore and Borneo.

Following the formation of the Federation of Malaysia in 1963, the airline was renamed Malaysian Airways. Three years later, after Singapore left the federation, a further rebranding took place, with the airline becoming Malaysia-Singapore Airlines (MSA). However, the new venture was shortlived as the shareholders of both nations had very different ideas of what they wanted from the carrier. So, in 1972, the assets of MSA were split between two new operators, Malaysian Airline System (MAS) and Singapore Airlines (SIA). MAS took to the skies in September that year with an initial route network consisting of 41 destinations and a fleet of 19 aircraft, including seven new Boeing 737-200s, the first of which had been delivered in July.

In 1974, it ordered its own Boeing 707-300s and launched services to London via Dubai. Widebodies arrived in 1976, when MAS received its first McDonnell Douglas DC-10-30s, followed by the Airbus A300B4 three years later. It wasn't until 1982 that the airline joined the jumbo jet set, when its first Boeing 747-236B, 9M-MHI

makeover

(c/n 22304), was delivered. Malaysia Airlines went on to operate the -100, -300 and -400 variants of the 747 until its retirement from regular scheduled passenger services in 2012.

Boom to bust

During the 1980s and 1990s, MAS rapidly expanded its network, assisted by the country's economic boom, and its fleet could be found as far afield as South America. However, the 1997 Asian financial crisis, coupled with the downturn in the aviation industry following the 9/11 terrorist attacks in the US, led the carrier to enter a restructuring programme. This saw the formation of a new state-owned parent company, Penerbangan Malaysia Bhd, in 2002 to take over the ailing airline's debts and assets.

Part of the transformation plan was an order for six Airbus A380s, with deliveries scheduled to commence in 2007. The superjumbo would be used on the carrier's flagship European services to London, Paris and Amsterdam. However, by the end of 2007, no aircraft had been delivered and the airline looked set to cancel the order as its financial woes continued and the aircraft no longer fit with its business plan. Malaysia Airlines finally received its first A380, 9M-MNA (c/n 78), on May 31, 2012, configured in a three-class layout with eight first-class seats, 66 in business and 412 in economy.

Losses continued to mount, leaving the airline perilously close to bankruptcy. A new CEO, Idris Jala, was brought on board in December 2005, refocusing MAS' operation on trunk routes and slashing the workforce by several thousand. Profits returned, albeit briefly, until the global financial crisis of 2007. The next few years were challenging and, in 2011, the airline reported losses of $841m, the biggest in its history. However, financial troubles were nothing compared to what Malaysia Airline System was about to go through.

Dark days

On March 8, 2014, a Malaysia Airlines Boeing 777-2H6ER, 9M-MRO (c/n 28420), disappeared while operating flight MH370 from Kuala Lumpur to Beijing, with 239 people on board.

»

Following the break-up of Malaysia-Singapore Airlines (MSA), the Boeing 707s were kept by the new Singapore Airlines until MAS received its own examples in 1974 BOEING

The airline joined the widebody revolution in 1976 when it received its first McDonnell Douglas DC-10-30s AIRTEAMIMAGES.COM/CAZ CASWELL

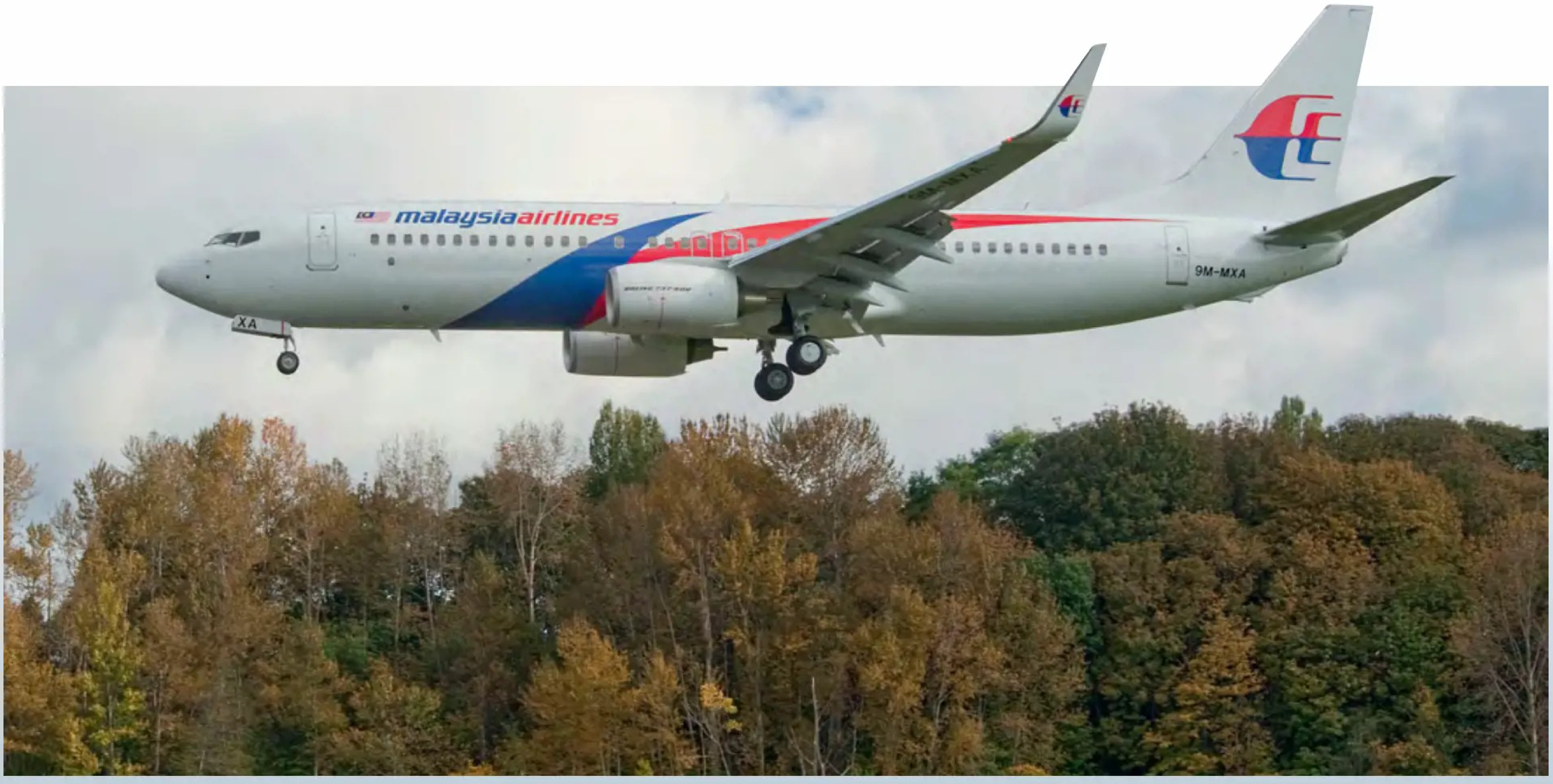
Despite spending millions of dollars on the largest search in aviation history, the aircraft and its passengers have never been found.

Just four months later, while still reeling from the loss of MH370, tragedy befell the airline once again when flight MH17 from Amsterdam to Kuala Lumpur was shot down over Ukraine by a Russian-controlled group. All 298 people onboard the 777-2H6ER, 9M-MRD (c/n 28411), were killed.

Losing an aircraft is a devastating blow to any airline, especially one with a previously excellent safety record. But losing two in such a short period was unimaginable. Malaysia Airlines was in the press, but for all the wrong reasons, and passengers began to turn away from the carrier in their droves.

Shortly after the loss of MH17, the Malaysian Sovereign Wealth Fund, which already owned 69% of the carrier, took complete control in a $1.5bn restructuring. They delisted the airline from the stock exchange, declared it bankrupt and created a new company, Malaysia Airlines Berhad, from its ashes. Any remaining unprofitable routes, including all

BELOW: ***Malaysia Airlines would operate the -100, -200, -300 and -400 series of the Boeing 747. Pictured is 747-4H6, 9M-MHM (c/n 24405), delivered in 1989*** ALL IMAGES MAG UNLESS STATED



ABOVE: ***Malaysia Airlines ordered the Boeing 737-800s to replace its ageing 737-400s, receiving its first in 2010*** BOEING

European services apart from London/Heathrow, were removed. The Boeing 777 fleet was retired and a vast rebranding was undertaken, with new livery and a heavy focus on safety. Gradually, passengers returned.

All change

There were also changes at the top, with three different CEOs appointed between May 2015 and October 2017, when group managing director of Malaysia Aviation Group (MAG) Captain Izham Ismail, took the helm. Ismail had joined MAS as a pilot in 1979 and went on to hold various managerial positions. In April 1997, while flying the airline's first Boeing 777-2H6ER, 9M-MRA (c/n 28408), eastward from Seattle to Kuala Lumpur and back, he set new world records for the longest and fastest round-the-world flight by a commercial airliner, with a total flight time of 41 hours 59 minutes over a distance of 23,310 miles.

A month after Ismail's appointment, Malaysia Airlines welcomed its first Airbus A350-941, 9M-MAB (c/n 159). Leased from Air Lease Corporation (ALC), the aircraft was immediately put to work on its most prestigious route between Kuala Lumpur and London/Heathrow. Today, this route is served twice daily and consistently enjoys load factors of 85-90%, even in off-peak seasons.

The A350's arrival also saw Malaysia Airlines become the first carrier in the world to fit a first-class cabin on the -900. The cabin has four private suites – now rebranded as Business Suite Class – plus 35 lie-flat business seats and 247 economy seats.

While the COVID-19 pandemic had a significant impact, it did offer the opportunity to further restructure its debts. It also continued flying, being one of the leading carriers to provide repatriation flights from Europe to Asia, which allowed it to rebound quickly once borders reopened.

In 2021, it launched its five-year Long Term Business Plan 2.0 (LTBP 2.0). This would see its parent company, MAG, diversify from focusing solely on airline operations and offer a broader portfolio that catered to the different needs of its customers. This was supported by five strategic pillars: becoming a premium Asia-Pacific carrier, recapturing domestic and countries under the Association of Southeast Asian Nations (ASEAN), deepening commercial partnerships, diversifying revenue and making digital the cornerstone of its business. Under the plan, the airline expected to break even financially and be cash positive by 2023.

The timeline proved accurate, with MAG reporting a net profit of $177m for the 2023 financial year, its first annual profit in more than a decade. It said this was thanks to strong demand, especially in the premium segment. It was also boosted by the return of the carrier's Bonus Side Trip (BST) programme, which allows customers to take advantage of a complementary stopover at one of seven destinations in Malaysia, contributing to an increase in its overall revenue per available seat-kilometre (RASK) on long-haul routes.

A neo flagship

The LTBP 2.0 also included fleet expansion, from 69 to 83 by 2025, including a replacement for its ageing Airbus A330ceo fleet. In August 2022, MAG placed an order for 20 A330neos. Ten would come directly from Airbus on a sale and leaseback deal, while the remaining ten would be leased from Avolon. Ismail called the order "a significant milestone" in

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malaysia
9M-MRA
RA

BELOW: ***The airline's first 777-2H6ER, 9M-MRA (c/n 28408), set world records for longest flight and fastest round-the-world flight by a commercial airliner in April 1997, piloted by the current CEO*** AIRTEAMIMAGES.COM/PHILIPPE NORET

the carrier's post-restructuring plans and a "natural transition" from its A330ceo fleet.

The first Rolls-Royce Trent 7000-powered example was due to be delivered in mid-2024 but slipped to late September 2024. By October, the aircraft had still not arrived and MAG was forced to announce that delivery had been pushed back until late November due to "findings identified by Airbus during the flight line stage." Speaking at the time, MAG stated that it was collaborating closely with Airbus and lessor Avolon to establish a revised delivery schedule and accelerate the aircraft's entry into service.

Finally, on November 29, 2024, the airline welcomed its first A330-941, 9M-MNG (c/n 2080), escorted by a Royal Malaysian Air Force Sukhoi Su-30MKM fighter while performing a flypast at its new home.

Configured with 297 seats in a two-class layout, the arrival of the A330neo allowed the airline to unveil its "game-changing" new business class cabin. It features 28 Collins Aerospace Elevation mini-suites with direct aisle access, individual privacy doors and wireless charging pads, in a 1-2-1 reverse herringbone layout. Meanwhile, the economy cabin features 269 award-winning Recaro CL3810 seats, 24 of which offer extra legroom.

Less than a month later, the type replaced the A330-300 on the Kuala Lumpur to Melbourne/Tullamarine service. A special ceremony, attended by senior officials from Airbus, Rolls-Royce and Avolon, was held before the inaugural flight.

Speaking to *Airliner World*, MAG chief commercial officer Dersenish Aresandiran said Melbourne was chosen as the first destination to receive the new aircraft "as the Australian market is strong and ever-growing. We now expect to have a fleet of three A330neos by Q1 2025 and are currently looking at other potential new destinations where the type can be utilised best, while increasing frequencies on existing routes to offer the best experience for our customers."

However, the new arrival's entry into service was not smooth sailing. After operating just two flights, it was temporarily grounded due to technical issues. Problems with the type's engines and hydraulic systems were quickly resolved and November Golf re-entered service two days later.

ABOVE: ***After years of delays, the airline received its first Airbus A380 in May 2012. The type was retired in December 2022, with all six put into storage*** AVIATION IMAGE NETWORK/SIMON GREGORY

RIGHT: ***Izham Ismail was appointed to the role of CEO in October 2017 and is now the Malaysia Aviation Group's managing director***

Taking it to the MAX

In 2016, Malaysia Airlines embarked on its narrowbody fleet renewal programme, which saw a firm order placed with Boeing for 25 737 MAX 8s, with options on a further 25. A year later, the order was tweaked with a new memorandum of understanding (MoU) signed with

Malaysia Airlines operates both the A330-300, pictured here and the smaller -200 series, both of which are being replaced by its new A330neos AIRBUS/MASTER FILMS/HERVÉ GOUSSÉ

The airline's first Airbus A350-900 was delivered in November 2017 and it now operates a fleet of seven AIRBUS/DAVID VELUPILLIA

the US manufacturer to convert ten airframes to the larger MAX 10 variant. The MoU also included a tentative agreement for eight Boeing 787-8s, but this was dropped a year later. The airline said that the new jets would be used to replace its older Boeing 737-800s, the first of which had been delivered in 2010, on a one-for-one basis. However, in May 2021, MAG announced that it had agreed with Boeing to defer its 737 MAX deliveries until 2024. At the time, Ismail said the group remained committed to the type and was exploring the possibility of earlier delivery.

Malaysia Airlines' first MAX 8, 9M-MVA (c/n 66439), was delivered on November 16, 2023, becoming its first new aircraft type in more than

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RIGHT: ***Malaysia Airlines became the first airline in the world to introduce a first-class cabin on the A350-900 with four private suites, now rebranded as Business Suite Class***

Firefly

Firefly was established in March 2007 to serve markets that were not viable for Malaysia Airlines' mainline service. A month later, it commenced operations from Penang and Kuala Lumpur/Subang airports, offering both domestic and international routes with a fleet of Fokker 50s. A year later, these were gradually phased out, replaced by the ATR 72-500 and, in 2009, the -600 variant.

In 2010, the airline made its first foray into the jet market when it received its first Boeing 737-800. However, the venture was shortlived and, in August 2011, the 737s were transferred to its parent Malaysia Airlines and Firefly returned to its focus on regional turboprop services.

The airline re-entered the jet age in January 2021 as part of parent company MAG's broad restructuring process. It has since expanded to operate five 189-seat 737-800s, all of which are ex-Malaysia Airlines examples, along with ten ATR 72-500s.

Today, the low-cost carrier, which focuses on point-to-point traffic, flies to 23 destinations – 14 domestic and nine international – across six countries.

ATR

malaysia airlines
9M-MVA

five years. Its arrival also coincided with the unveiling of a modified livery, with the 'Wau' – a kite of Malaysian heritage – and the airline's logo positioned on the tail. Following the MAX 8's arrival and entry into service, Malaysia Airlines had expected to receive seven of the type during 2024, despite the continued production delays at the manufacturer. As *Airliner World* went to press, it had received six of the jets, with two more scheduled for delivery by the end of January 2025.

Indeed, MAG had expected to welcome 17 new aircraft during 2024: 13 737 MAX 8s and four A330neos, but received less than half of these. Ismail stated that delays had been "significantly disrupting" its fleet renewal plans.

Operational woes

These delivery delays, coupled with longer-than-expected maintenance times, forced the airline to make the difficult decision in August 2024 to slash its network by around 20% until the end of the year. This, the airline said, would allow it to deliver "credible flight schedules." The cuts affected the networks of Malaysia Airlines, Firefly and its religious charter unit, Amal.

Malaysia Airlines was also hit with several well-publicised operational issues. In June 2024, a surprise audit was carried out, which uncovered several shortcomings, including a shortage of parts, partly due to ongoing supply chain issues and MRO workers. This led the Civil Aviation Authority of Malaysia (CAAM) to temporarily cut the validity of the carrier's air operators certificate (AOC) from three years to one and submit a monthly report to CAAM with detailed updates on its mitigation plans to improve its operations.

Speaking exclusively to *Airliner World*, Ismail said: "We are committed to maintaining our full network operations with our current fleet and continue to proactively manage our capacity ahead of time to avoid any travel disruptions to our passengers.

"Our strategic focus [in 2025] will be on three key goals: increasing aircraft availability, enhancing customer

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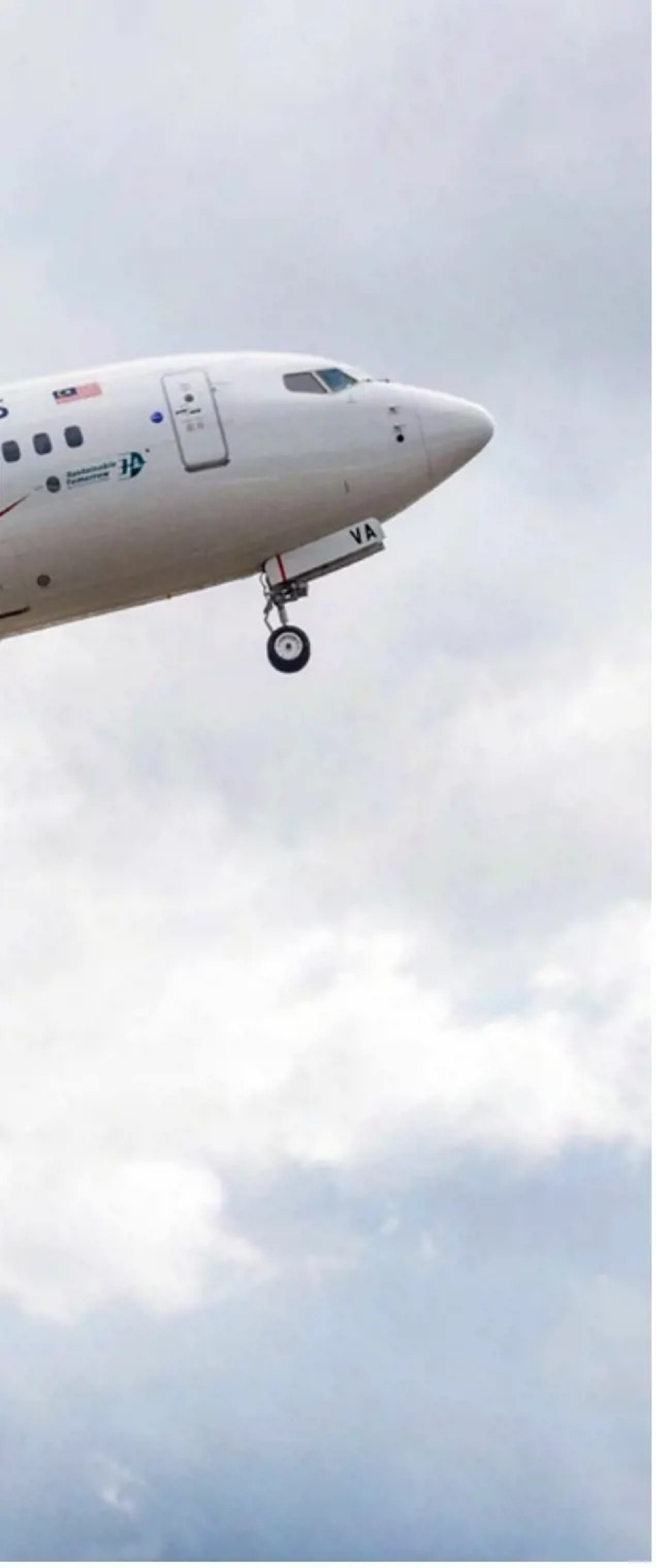
ABOVE: ***The delivery of the first 737 MAX 8, 9M-MVA (c/n 66439), in November 2023 also coincided with the unveiling of a new livery*** BOEING

LEFT: ***Dersenish Aresandiran, chief commercial officer of MAG Airlines***

RIGHT: ***On November 29, 2024, the airline welcomed its first A330-941, 9M-MNG (c/n 2080)***



ATR

MASWings

MASWings was officially launched on October 1, 2007, to operate government-subsidised regional services in east Malaysia, taking over from the privately owned Fly Asian Xpress. It commenced operations to 22 destinations in Sabah, Sarawak and Labuan with a fleet of Fokker 50s and de Havilland Canada DHC-6 Twin Otters. However, these were quickly replaced by ATR 72-500s and Viking Air Series 400 Twin Otters.

In 2012, the airline expanded into international operations, launching flights to Brunei, Indonesia and the Philippines under the ASEAN Growth Area plan. These routes were subsequently dropped in 2022 owing to the COVID-19 pandemic, which significantly affected operations. Recovery was slow, but the airline kept operating thanks to government subsidies.

In 2023, the Sarawak government expressed an interest in purchasing MASwings from MAG to enhance the region's connectivity and expand its offering. The deal was finalised on January 13, 2025, and the takeover is expected to be completed in the first quarter of 2025.

Amal by Malaysia Airlines

Amal by Malaysia Airlines can trace its history back to 2017, when MAG launched Project Hope, with the idea of converting its six Airbus A380s into high-capacity charter aircraft designed to serve Hajj and Umrah pilgrimage flights as a standalone entity within the aviation group. However, it was later developed as a Malaysia Airlines subsidiary brand and formally launched in February 2019.

Amal provides comprehensive travel packages for pilgrims using full charter flights, block seat charters and scheduled flight services from parts of Africa, China, Malaysia, Indonesia, Pakistan and Thailand to Jeddah and Medina in Saudi Arabia.

As the world's first dedicated pilgrimage airline service, the airline offers unique inflight features such as audio of Talbiyah and Nasyid during boarding, Musaffir prayers, Azan, Tazkirah and Miqat announcements, and specialised religious content on its inflight entertainment system.

Services were suspended during the COVID-19 pandemic and relaunched in October 2021. Following the retirement of the A380, Amal now uses the Airbus A330 for its medium- and long-haul services, with the 737-800 providing a feed into Kuala Lumpur.

LEFT: *The A330neo is configured with 297 seats in a two-class layout. The economy cabin (pictured) is fitted with 269 award-winning Recaro CL3810 seats*

LEFT: *It is the 28 business class mini-suites, configured in a 1-2-1 reverse herringbone layout, that are the real game-changer for Malaysia Airlines*

satisfaction and improving on-time performance (OTP). Achieving these objectives will ensure a safe, reliable and exceptional experience for our passengers, positioning us for sustainable growth in the aviation industry."

When asked whether the aircraft delivery delays could continue to hamper the airline's growth plans, he responded: "Capacity growth projections remain uncertain until the delivery timeline stabilises. We are closely monitoring the situation and will make necessary adjustments to ensure minimal disruption to our network and passenger experience."

Looking ahead

Going in to 2025, there is the highly anticipated return of Paris/Charles de Gaulle to Malaysia's network from March 22. Flown by one of the carrier's seven-strong fleet of A350-941s, the flight will initially operate four times per week, increasing to daily from March 29.

Ismail said that this long-awaited return to Paris marked "a significant milestone for Malaysia Airlines" and was a testament to its "continued growth commitment." The airline had previously served the French capital from 1981, until it was dropped in 2016. Ismail went on to say that despite the European market being "highly competitive," they saw "tremendous potential for this route."

As for the rest of the network, Aresandiran added that the airline had seen "a significant uptake in demand" and that its three biggest markets, which had enjoyed the highest load factors, were Europe, Australia and South Asia. Aresandiran also said that the Indian market was very important and that it was looking at flying to more European destinations within the next five years.

Beyond point-to-point travel, Ismail explained how the airline offers "unmatched connectivity through Kuala Lumpur," positioning it as a gateway to Asia and beyond. He said this was a strength Malaysia Airlines would continue to build upon, driven

BELOW: *Malaysia Airlines plans to have three A330neos in service by spring 2025* AIRBUS

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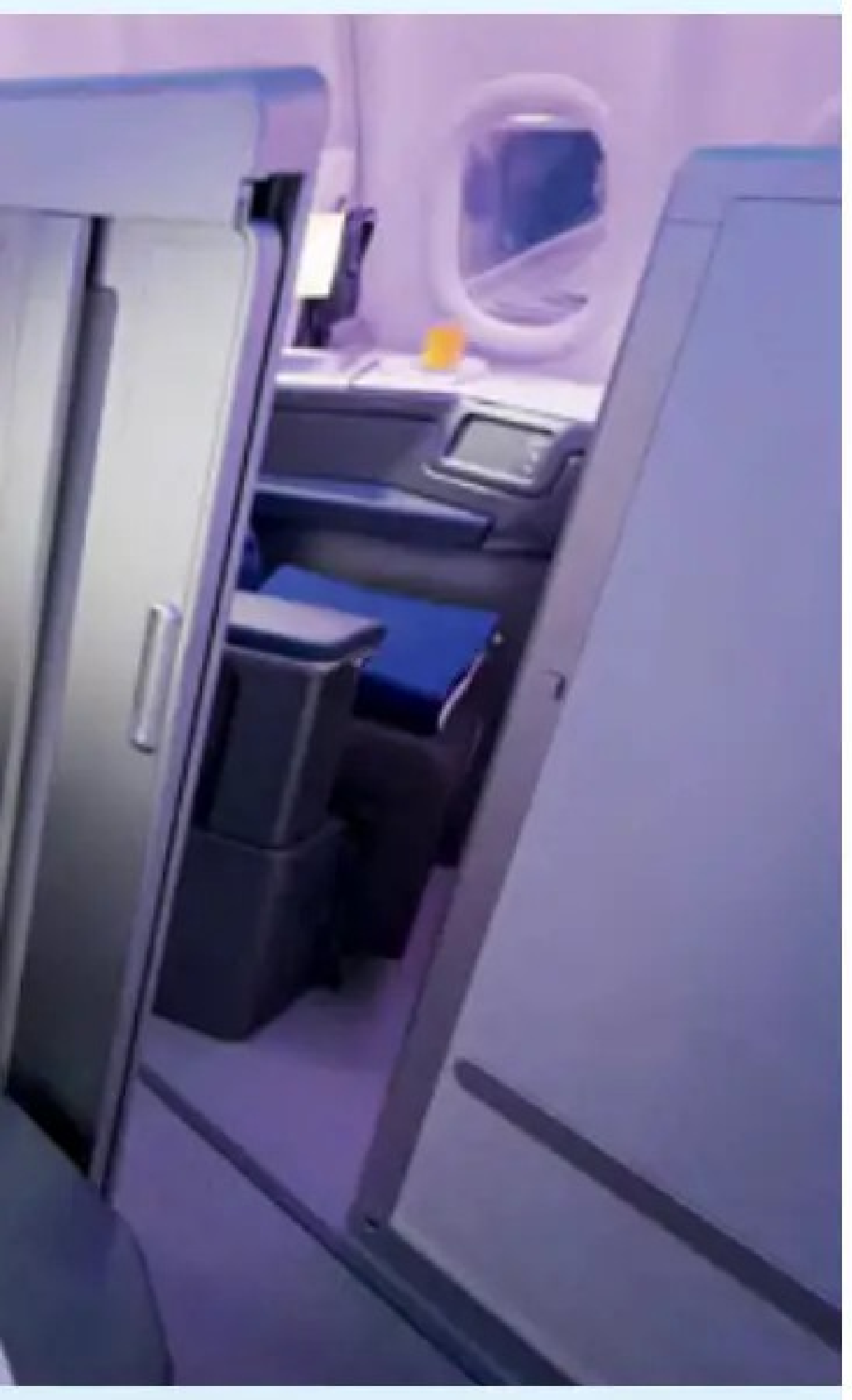

ABOVE: *Designed by Collins Aerospace, the Elevation mini-suites offer direct aisle access with individual privacy doors and seats that convert into lie-flat beds*

Malaysia Airlines prides itself on its welcoming and hospitable service, and its cabin crew have been an integral part of that throughout its history

MASKargo

MAB Kargo Sdn Bhd, also known as MASkargo, is the dedicated cargo arm of MAG, offering scheduled freighter services with three Airbus A330-200Fs and belly capacity on its passenger services to more than 100 destinations.

It became a subsidiary of Malaysia Airlines in April 1997 and took on two Boeing 747-200Fs from its parent. In August 2004, a pair of 747-400Fs were ordered, with the first arriving in 2006.

Four years later, its parent ordered two Airbus A330-200Fs, with options on a further two. The first, with a capacity of 61 tonnes, arrived in September 2011, and today it operates three examples.

The cargo business has become increasingly important to the aviation group in terms of revenue and, in June 2024, MASkargo announced a new partnership with Qatar Airways Cargo. This will allow the two carriers to access their respective markets via seamless connections at Doha/Hamad International and Kuala Lumpur International. Three months on, MAG issued a tender notice in a bid to partner with a Boeing 737-800 freighter carrier to expand its regional Asia operations for a period of 14 months, with an option to extend this for a further 12 months.

MAG

by key enhancements to its inflight offering. These include the rollout of MHconnect, the airline's free Wi-Fi for all passengers regardless of cabin class or loyalty tier, across its Boeing 737 MAX 8 fleet. Regarding its aircraft cabins, Malaysia Airlines is providing refreshed amenity kits and improved soft furnishings, including larger blankets and redesigned duvets and mattress covers. It also plans to retrofit its A350s with the new A330neo cabins starting in early 2026, to ensure cabin standardisation for a seamless and premium experience.

Ismail explained that the airline was still "actively pursuing fleet renewal and growth opportunities". This includes the outstanding request for proposals (RFP) for a narrowbody aircraft, which, according to previous comments by Ismail, could include Airbus and COMAC's products. "By 2033, we are looking to operate 62 narrowbody and 52 widebody aircraft," Ismail noted.

After weathering numerous storms in recent years, Malaysia Airlines finally appears to be soaring into clearer skies. For now, Ismail stated that he and his team were "determined to make 2025 a year of rebuilding and strengthening our credibility."

next month

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Airliner World (ISSN: 1465-6337), is published monthly by, Key Publishing Ltd, PO Box 300, Stamford, Lincolnshire, PE9 1NA, UK

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Airfreight and mailing in the USA by agent named World Container INC 150-15, 183rd St, Jamaica, NY 11413, USA.
Periodicals Postage Paid at Brooklyn, NY 11256.

POSTMASTER: Send address changes to *Airliner World, Air Business Ltd,*
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PRINTED IN ENGLAND BY:
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